

DESIGN CONCEPT



Gateways ■ Pathways ■ Connections ■ Destinations

DESIGN CONCEPT

THIS DOCUMENT IS INTENDED TO ENVISION possibilities for an integrated open space and recreation network in the westside of Long Beach, connecting city to river. Based upon the issues and opportunities from the previous sections, this portion of the document will propose appropriate strategies to accomplish this vision. First will be a connectivity concept for the westside of Long Beach, integrating an existing transit system with proposed wayfinding devices to enhance the city image and connect the Los Angeles River greenway and associated parks to the cultural heritage of adjoining neighborhoods. Appropriate urban habitats will be re-created, and the urban forest will provide ecological and social benefits to the city. These natural and cultural resources are woven by the design team, into the westside of Long Beach connectivity concept and are expressed as gateways to mark entry in the RiverLink system, as pathways through the RiverLink system, as connections to transit and other pathways, and as destinations along the Los Angeles River.

The effort to connect city to river is most ambitious. There are myriad possibilities to conceptually connect these entities. The design team examined four preliminary conceptual strategies, described below as neighborhood patch, transit loop, river-centric, and eco-basin. Each presented creative opportunities for connecting city to river. Because of the complex nature of the all of the urban elements and systems in such a city as Long Beach, it was important to work out how to integrate the various parts in order to create a coherent system of river reconnection. The comparison and evaluation of each preliminary concept aided in the process of determining the final RiverLink concept.

The following criteria were established from the project goals and objectives to guide the design team in selecting the concept or combination of concepts, which would best relate to the issues of the westside of Long Beach:

- Create and enhance connections from the city to the river
- Enhance outdoor recreational opportunities
- Promote the adaptive reuse of existing sites and infrastructure
- Create and enhance connections between neighborhoods
- Encourage pedestrian and human-powered means of transportation
- Enhance the urban forest along streets and within sites
- Create connections between people and the natural and physical environments

PRELIMINARY CONCEPTS

Neighborhood Patch

The first concept considered, the neighborhood patch, linked the individual districts of the westside of Long Beach by enhancing the local street connections between adjacent neighborhoods. Because residents describe Long Beach as a “city of neighborhoods,” emphasis of the individual neighborhoods was a priority of the RiverLink project. Thus, movement to the river greenway is segmented, going from one neighborhood to another, taking advantage of local shopping nodes and neighborhood parks along the way.

Transit Loop

The second concept considered, the transit loop, took full advantage of the existing mass transit network in Long Beach, encouraging a systematic movement through the westside of Long Beach. Emphasized transit nodes would allow people to board a bus or train from most major streets and follow that system directly to the river greenway.

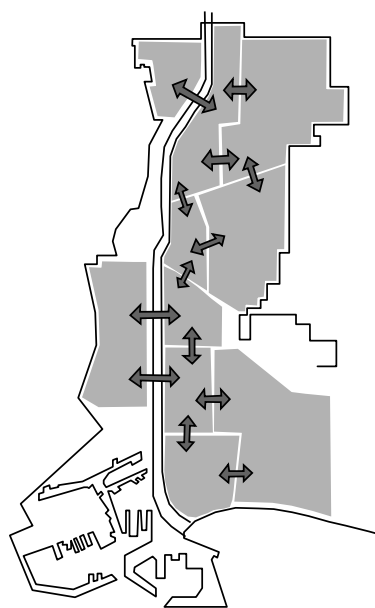
River-Centric

The third concept, river-centric, emphasized the Los Angeles River as a major spine of movement in the westside of Long Beach. Pedestrian and bicycle travel would converge on access points along the river then move north or south within the system.

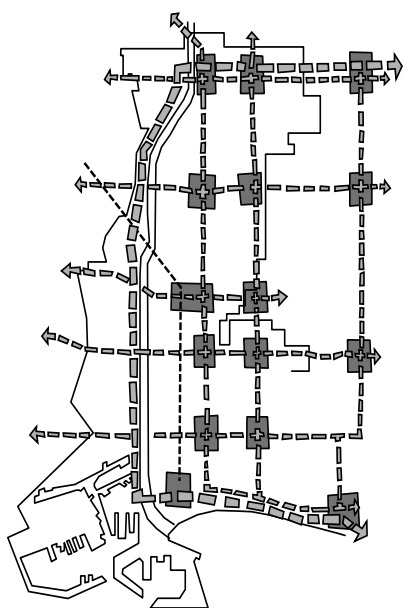
Eco-Basins

The eco-basins concept focused on the natural river valley as the area of opportunity. Movement into the system begins on the watershed ridgelines and follows the flow of water towards the Los Angeles River.

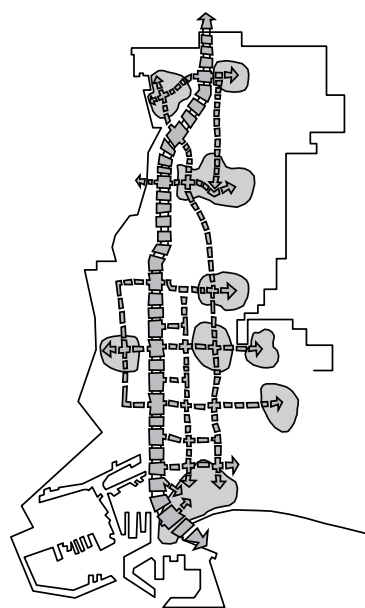
The four connectivity concepts overlayed with greater emphasis placed on the river-centric concept and the eco-basins concept related best to the project vision and goals, suggesting that features from each be combined into a composite concept. This combination of a concept lead to the development for the RiverLink concept.



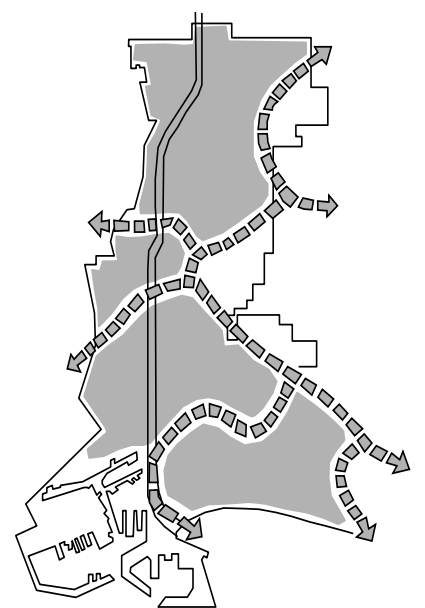
Neighborhood Patch



Transit Loop

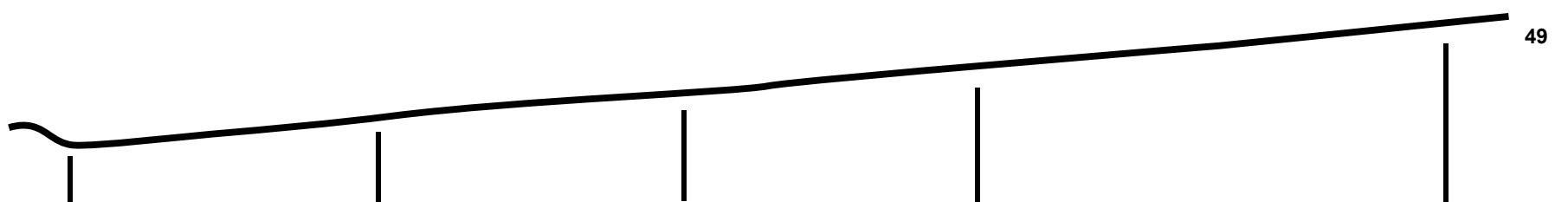


River-Centric



Eco-basin

Preliminary Concepts



49



Destination

Pathway

Connection

Pathway

Gateway

Major open space attractions of the system

Directs movement through the system

Exists where transit networks intersect

Directs movement through the system

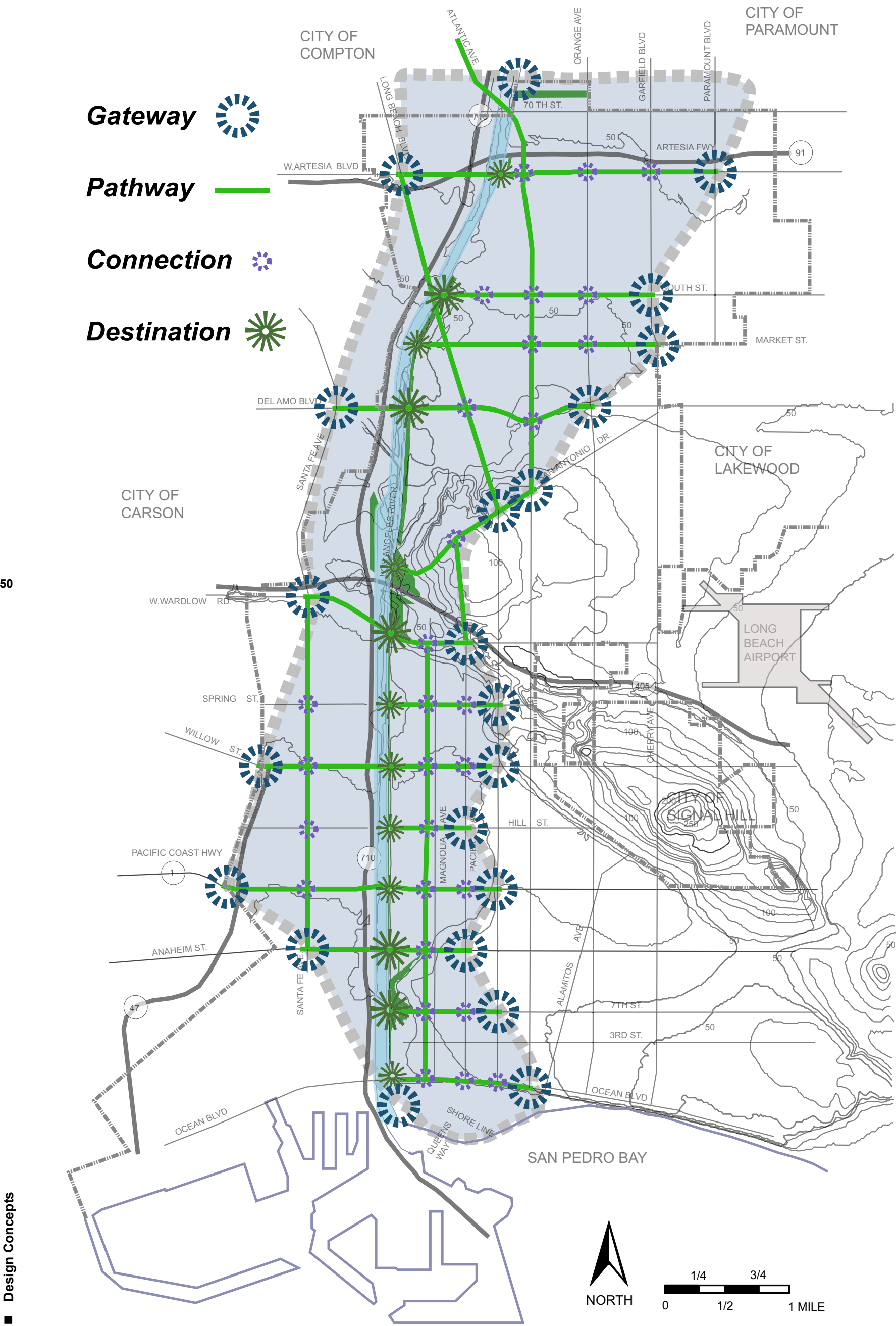
Announces entry into the system and marks watershed boundaries

RiverLink System Diagram "Kit of Parts"

WESTSIDE OF LONG BEACH

RIVERLINK SYSTEM

SOURCE: BASE MATERIALS PROVIDED BY CITY OF LONG BEACH, CA



RIVERLINK CONCEPT

THE RIVERLINK CONCEPT DESIGNATES A system of *gateways*, *pathways*, *connections*, and *destinations* directing visitors through the westside of Long Beach and to the Los Angeles River greenway. As with the eco-basin concept, the RiverLink system is defined by watershed ridgelines that reveal the hydrologic importance of the river. The river is the central feature of this concept and a major travel spine, augmented by a web of interconnected roads and pathways to assist movement throughout the rest of the westside of Long Beach.

As part of RiverLink’s interwoven system of gateways, pathways, connections and destinations, the gateways announce entry into the RiverLink System and are located along the watershed ridgelines where they intersect with major streets. There are also gateways at the north and south ends of the Long Beach reach of the Los Angeles River. The RiverLink gateways are of major significance because they denote the entry into the Riverlink system and guide movement from the neighborhoods to designated routes that access the Los Angeles River greenway. The gateways into the greenway designate where the river connects to Long Beach, to adjacent cities in the north, and to San Pedro Bay Estuary in the south.

Pathways are the streets and routes that direct people and vehicles throughout the westside of Long Beach to the river greenway. The pathway designation begins along the street at the gateway and continues along the street to a connection or to the river destination, and then ultimately to a gateway on the other bank of the river. A unifying theme will distinguish pathways from other local streets as major river access routes. Along with connections, the RiverLink pathways assist and enhance the connectivity from the neighborhoods to destinations such as downtown Long Beach and the Los Angeles River, by providing safe, universally accessible routes.

Connections exist along the pathways at the intersections where, at minimum, two transit networks meet, either pedestrian, bicycle, and/or vehicular, and particularly at mass transit stops or stations. This allows easy access to the RiverLink system from the rest of the city and surrounding areas.

Destinations are the places of interest within the RiverLink system. The system will focus on the destinations of parks and open spaces along the river, which create the terminating points of pathways. Destinations are the major attraction of the system and can evolve as potential additional open space becomes available and as the needs of Long Beach change. Furthermore, they will add to the city’s goal of eight acres of park

and open space for every 1,000 residents. Destinations are also microcosms of the entire system, with each having its own individual system of gateways, pathways, connections and destinations within its boundaries. This entire system relates to a modular ‘kit of parts’, assembled piece by piece to connect city to river and move people across the westside of Long Beach. Each individual part can function alone, which will allow the system to function even if some parts are not implemented or as additional properties are acquired.

Built Environment of the RiverLink System

These guidelines will be used to design amenities based on scale:

- Emulate architectural and cultural styles for buildings and structures
- Use architectural and cultural elements for benches, lighting, and water fountains
- Use architectural and cultural motifs on signage and displays, etc.

Color Selection

- Derive color from materials and tastes of the period architecture
- Use natural colors found within the foliage and structure of the native historic vegetation
- Make colors slightly darker than landscape precedents, as they will fade in the intense sunlight (dark colors also look lighter in bright sun) (USDA, 2001)
- Use light to moderate earth tones such as browns, dark greens gray-greens, light grays, olive, sage, tans, terra cotta, and ochre
- Avoid reflective colors (USDA, 2001)
- Use color as an accent in decorative elements such as clay tiles, mosaics, and in door and window frames (USDA, 2001)

Materials

- Use materials that are solar-and wind-exposure resistant
- Select materials that require minimal maintenance and are vandal resistant
- Use stone bases for structural columns and similar elements (USDA, 2001)
- Use stained wood siding rather than painted wood (USDA, 2001)
- Select materials with natural colors or fin-

- ishes that require no painting or staining
- Use steel, brushed aluminum, or other durable alloy materials to reduce maintenance and as alternative to wood on exposed structural elements
- Use materials to repel and disperse heat
- Use decomposed granite to match surrounding earth tones for pathways (USDA, 2001)
- Use stone pavers or concrete pathways for higher foot traffic areas
- Avoid reflective materials that create glare (USDA, 2001)
- Use locally produced material whether possible (USDA, 2001)

Plant Selection and Landform Design

- Consider wildlife habitat and forage potential when selecting vegetation
- Emulate historic patterns and groupings
- Plant trees to favor the west side of structures for shading
- Landscape with native and adapted plants to reduce resource and maintenance inputs.
- Grade landforms to direct water runoff to landscaping

Siting and Structure Placement

- Place at nodes that correspond to the urban grid
- Place at areas of historical or cultural significance
- Place appropriate to use and cadence of streetscapes and transportation system
- Choose sites based on shading possibilities
- Avoid riparian areas for structure placement—direct people to the water with trails while protecting such zones from foot traffic
- Buffer parking from buildings to keep buildings cool (USDA, 2001)
- Orient amenities and structures to provide shelter from the sun and wind
- Site structures to minimize western solar gain

Structural Elements

- Derive from vernacular architecture details and/or the color or structure of historic natural vegetation

- Use traditional courtyards to provide shade (USDA, 2001)
- Keep facility structures more horizontal than vertical (USDA, 2001)
- Use hipped and double pitched roofs on facilities structures (USDA, 2001)
- Recycle existing site buildings and materials whenever practical and safe
- Include larger overhangs for shade
- Include verandas and porches for shade
- Locate design details at focal points and at interpretive signage

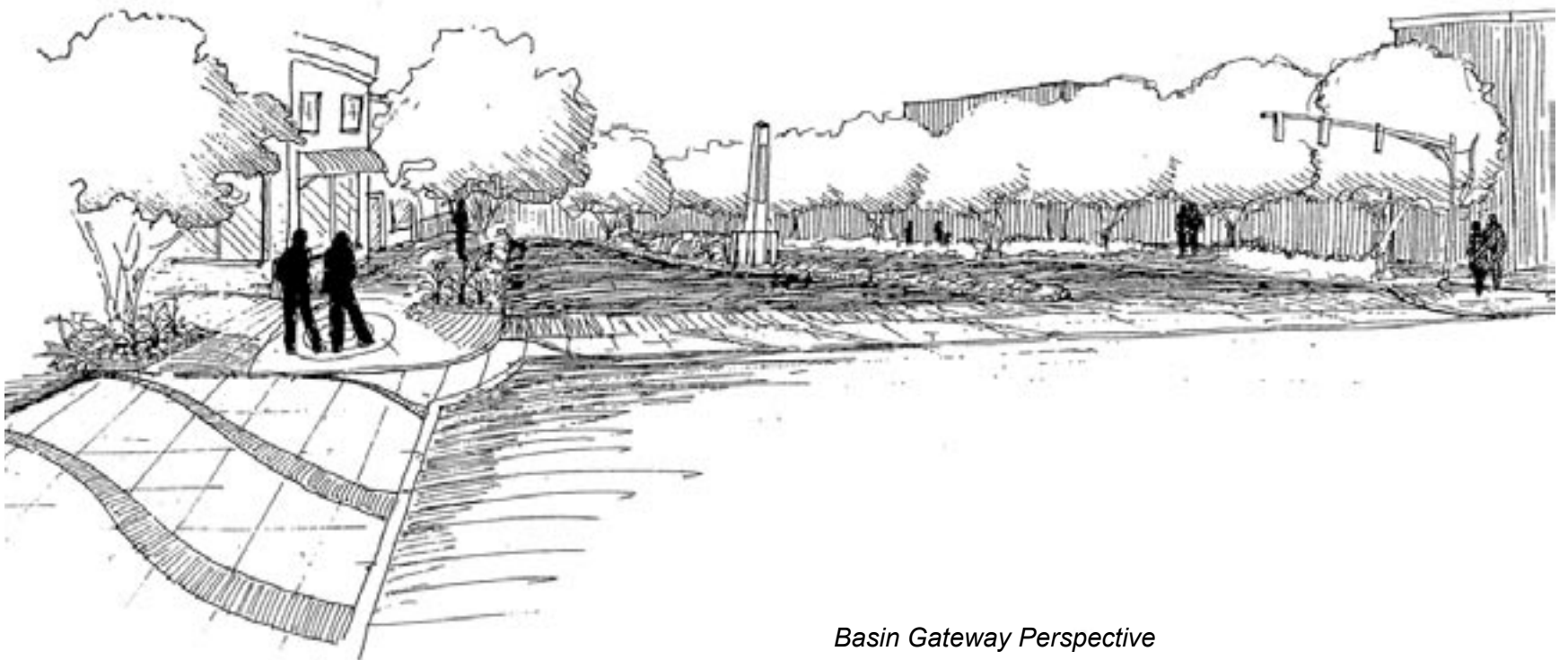
The RiverLink concept for connecting the west-side of Long Beach allows for all types of movement, from human-powered to vehicular. Above all, it will promote inter-modal transit use, allowing a visitor to take his or her bike with them on the train or bus, get off at the designated connection, bike or walk along that marked pathway, and arrive at the destination park along the Los Angeles River. The built environment thematic design guidelines will provide a framework to design the physical features of the RiverLink system so they will fit in with the cultural and ecological character of adjacent neighborhoods. Thus, this concept will connect city to river, and will link people to the cultural and ecological heritage of the westside of Long Beach.

GATEWAYS

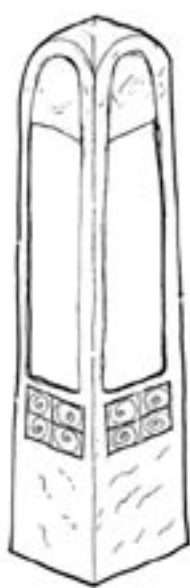
As described before, gateways are those points where a visitor begins the journey along a pathway towards a connection and/or destination. The Los Angeles River is the central feature of the RiverLink concept, which currently exists in Long Beach only as a concrete or rip-rap channel, with much of its natural hydrologic and geographic features distorted or lost to the infrastructure of urbanization. There are no significant entrance points into the river system, making it difficult for residents and visitors to recognize where they can enter the system. The RiverLink system attempts to reflect the natural river channel as defined by watershed topography.

Design Response: To signify entry into the RiverLink system, gateways will be placed throughout the system to denote the beginning of the pathways and other significant points. The Drake Greenbelt will have the most significant gateway, based on scale, to signify a major connection between downtown Long Beach and the river greenway.

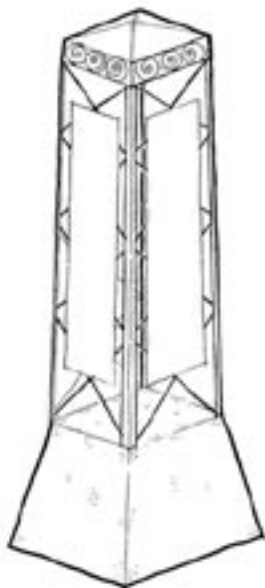
A river gateway at the Golden Shore Wetlands will signify the beginning of the Los Angeles River and the southern end on the Long Beach reach, creating



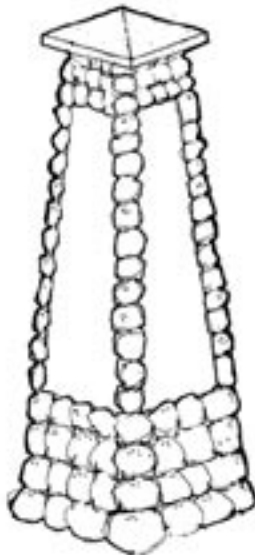
Basin Gateway Perspective



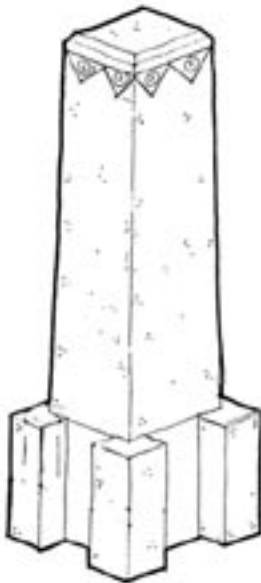
Spanish Revival



Industrial



Craftsman



Art Deco

RiverLink Basin Gateways

a transition between the Los Angeles River and the San Pedro Bay. Another gateway will be placed on the channel berm just north of the potential Edison Yards site, just inside the borderline, to denote the northern end of Long Beach’s reach of the Los Angeles River. These will resemble scaled-down versions of the RiverLink Gateway Monument located in Drake Greenbelt and will promote a continuation of the greenway system north along the Los Angeles River channel.

Monumental gateways will be created where pathways meet with the watershed ridgeline, denoting entrance into the RiverLink system. Gateways along the ridgeline will have a typical design; however the detailing of each gateway will match the thematic design guidelines appropriate for that neighborhood.

The design of the RiverLink gateways will assist residents and visitors in locating pathways that lead to the river greenway. They will be significant features of the neighborhoods in which they are located, and, through their associated landscaping treatments, will reveal the natural character of the westside of Long Beach that once existed.

PATHWAYS

RiverLink pathways are the framework of the system. They facilitate free movement in and around the neighborhoods and toward the river greenway. The following criteria were established from the project goals and objectives to guide the design team in the successful design of the RiverLink pathways.

- Optimize transit connections by denoting existing bus stops.
- Encourage walking and bicycling by providing safe comfortable travel lanes.
- Optimize the urban forest by increasing the number of canopy trees and understory shrubs along the street edge.
- Enhance pedestrian safety by separating pedestrian traffic from vehicular traffic along the street.

- Provide amenity zones along the street for stopping and resting.
- Enhance wayfinding through signage, planting, and streetscape details.

By following these criteria, the design team was able to build a framework of approach for streetscape design and the unifying elements within the pathway system.

Based on the street classification and adjacent land use, functions and objectives are developed for each type of street. A major component of streetscape design is the use of street trees, which will constitute the urban forest. Along commercial or retail stretches, street trees are the most significant design element affecting shoppers. Trees ease the heat, glare, pollution, and dust from the roadway, while enhancing the aesthetic conditions along the street. The data below shows the air quality benefits of enhancing the urban forest along major streets.

Formal use of street trees is used to create rhythm and dynamism, visually denoting the RiverLink pathways leading into the river system. Typical design elements and materials, based on street classification, are discussed below.

MAJOR ARTERIALS
Typical Design Example: Anaheim Street

Major arterials are the spines of the city and carry the heavy crosstown traffic. Typically, these streets have two lanes of traffic each way separated by a planted median, and parallel parking lanes along the 8’ to 10’ sidewalks. Medians consist typically of sparsely planted

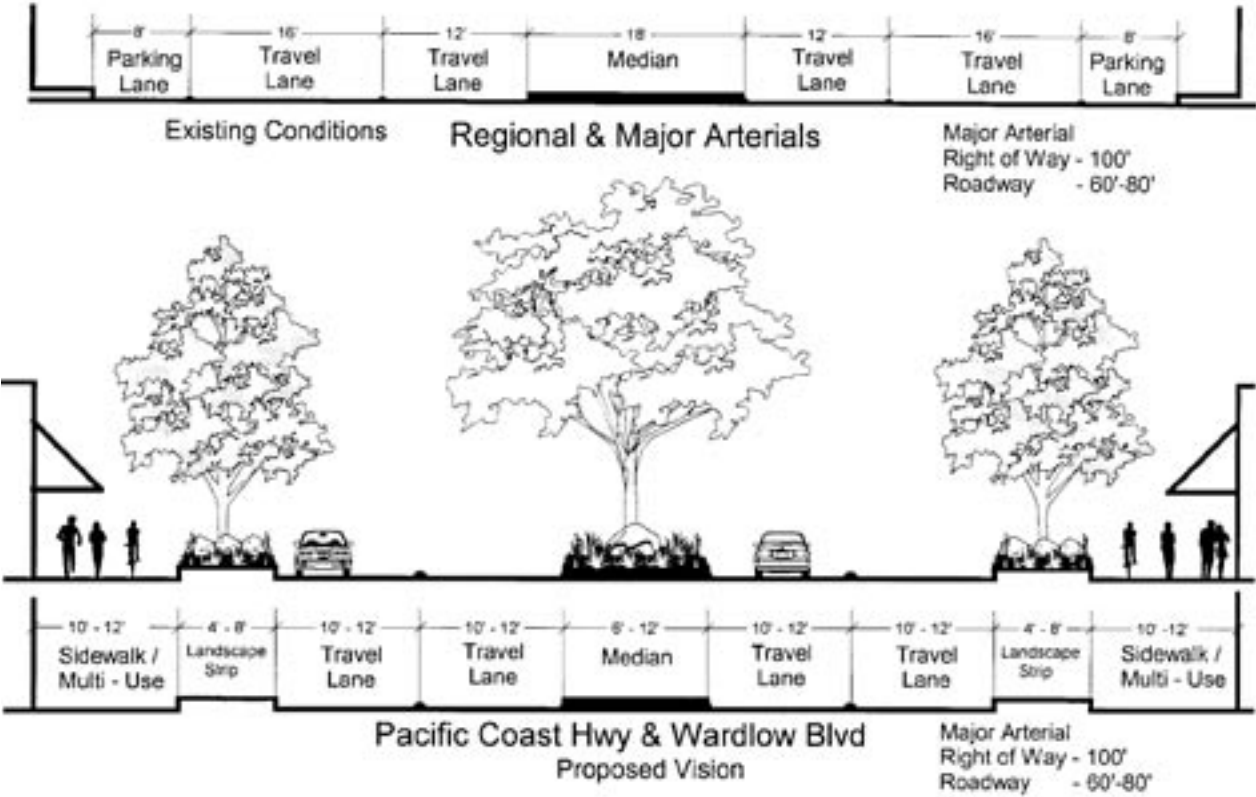
eucalyptus (*Eucalyptus sp.*) and queen palms (*Syagrus romanzoffiana*), neither of which provide adequate shade, wildlife habitat, or aesthetic definition to the street.

Design Response: The major constraint of streetscape design is that there is no apparent room to squeeze desired amenities into the existing infrastructure. The city has proposed in its redevelopment plans to relocate parallel parking from along major arterials to alleys behind the commercial lots where parking is needed. This creates an additional space on both sides of the roadway. The travel lanes are narrowed to minimum-allowed dimensions and the median is also reduced in size. The extra space is added to the sidewalks, creating a multiuse path and landscape lane that will separate the pedestrians from roadway traffic. A Class III bike route designation is given to the roadway because the streetscape improvements do not allow room for a striped lane. The multiuse path is primarily for pedestrians; however, it will be given a “Share-the-Path” designation allowing for slow-moving, localized bicycle traffic. The design team recognizes that commuter bicyclists may choose to use the roadway to avoid slower pedestrian travel, and local bike traffic may use the sidewalk regardless of posted signs, so the Share-the-Path designation provides a creative response to conflicting uses along the street. The landscape lane will provide amenities such as seating, trash and recycling receptacles, and map kiosks in areas along the pathway. These amenities will be spaced according to the commercial activity along the street. Plantings within the median and landscape lanes will gradually change based on the approximate historical vegetation patterns across the westside of Long Beach. This will create aesthetically pleasing, low water, low maintenance groupings of plants, bringing life back to the streets.

Carbon Storage and Pollution Removal Data for Street Trees
Proposed Planting on Anaheim St. between Los Angeles River channel and Pacific Ave.

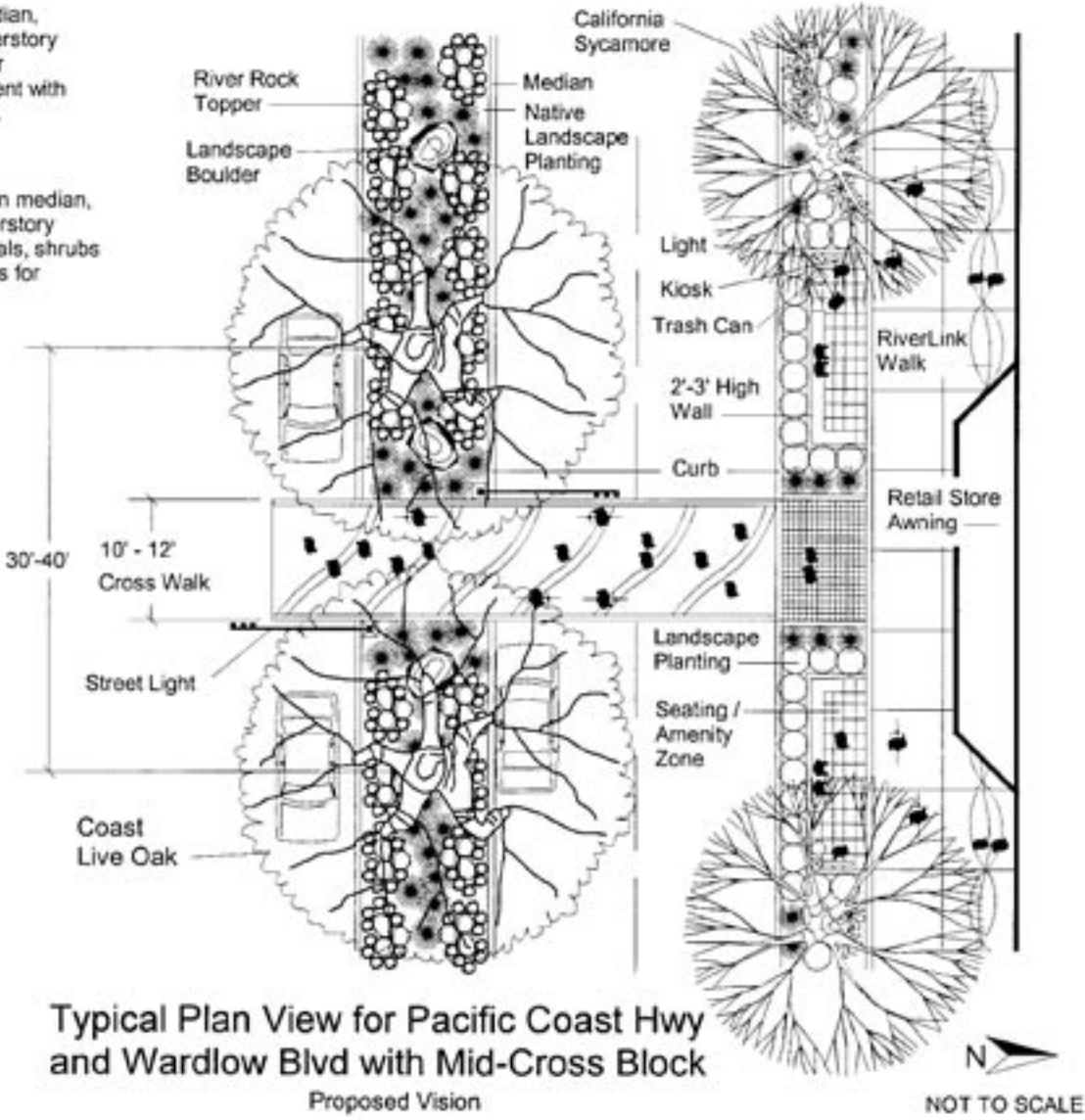
	Tree Count	Avg. DBH (in)	Carbon Storage (tons)	Carbon Sequestration (tons/year)	Ozone (O3) (lbs)	Sulphur dioxide (SO2) (lbs)	Nitrogen dioxide (NO2) (lbs)	PM10 (lbs)	Carbon monoxide (CO) (lbs)
1st Year Planting	132	5.00	7.98	0.18	8.00	2.70	4.20	7.40	0.90
10 Year Growth	132	10.00	26.79	0.60	26.60	8.90	13.80	24.70	3.00
30 Year Growth	132	19.00	90.21	0.16	65.40	21.90	33.90	60.70	7.20
50 Year Growth	132	29.00	117.12	0.20	85.00	28.50	44.00	78.80	9.40

DBH = trunk diameter at breast height
PM10 = Particulate matter 10 microns or less in size

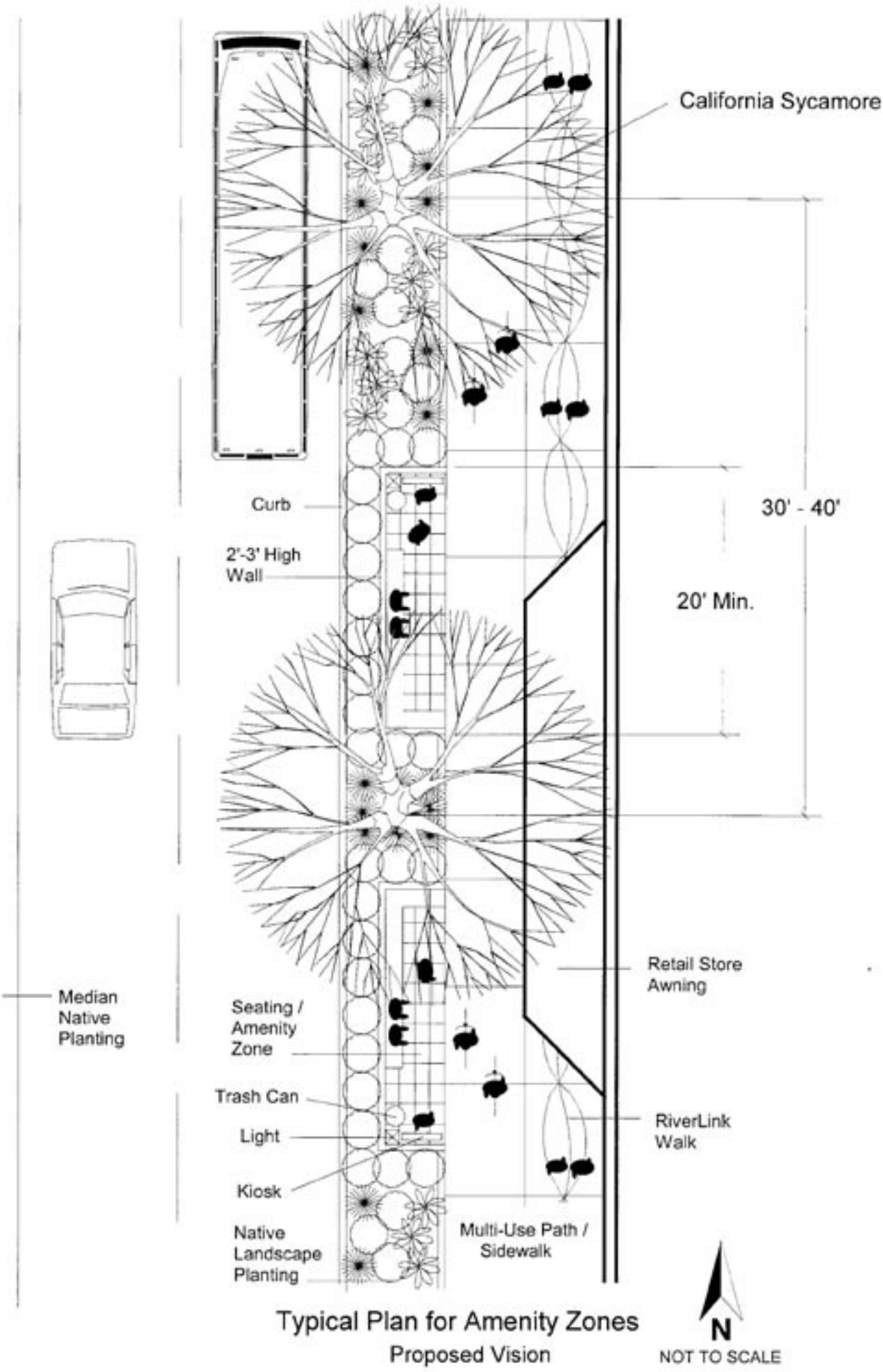


Note:
Oak trees in median, plant native understory grasses and river boulders for accent with river rock topper.

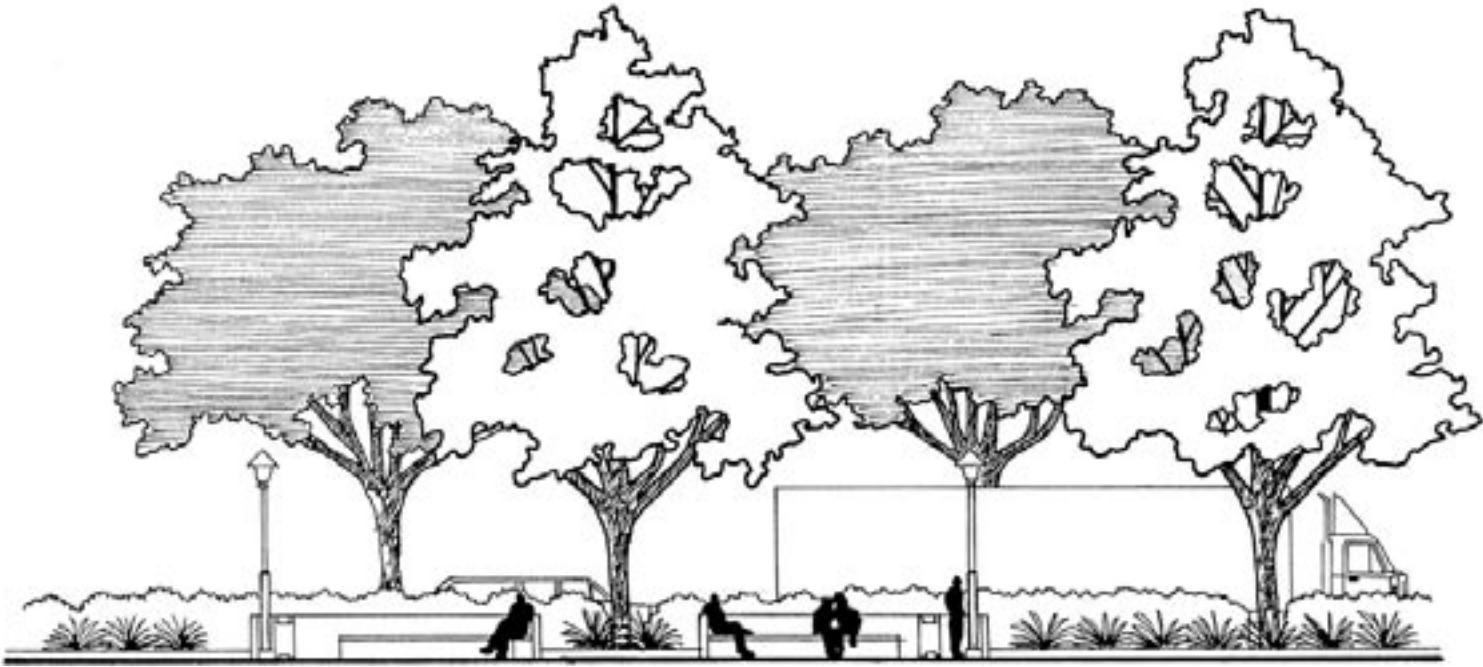
Note:
Sycamore trees in median, plant native understory grasses, perennials, shrubs and river boulders for accent.



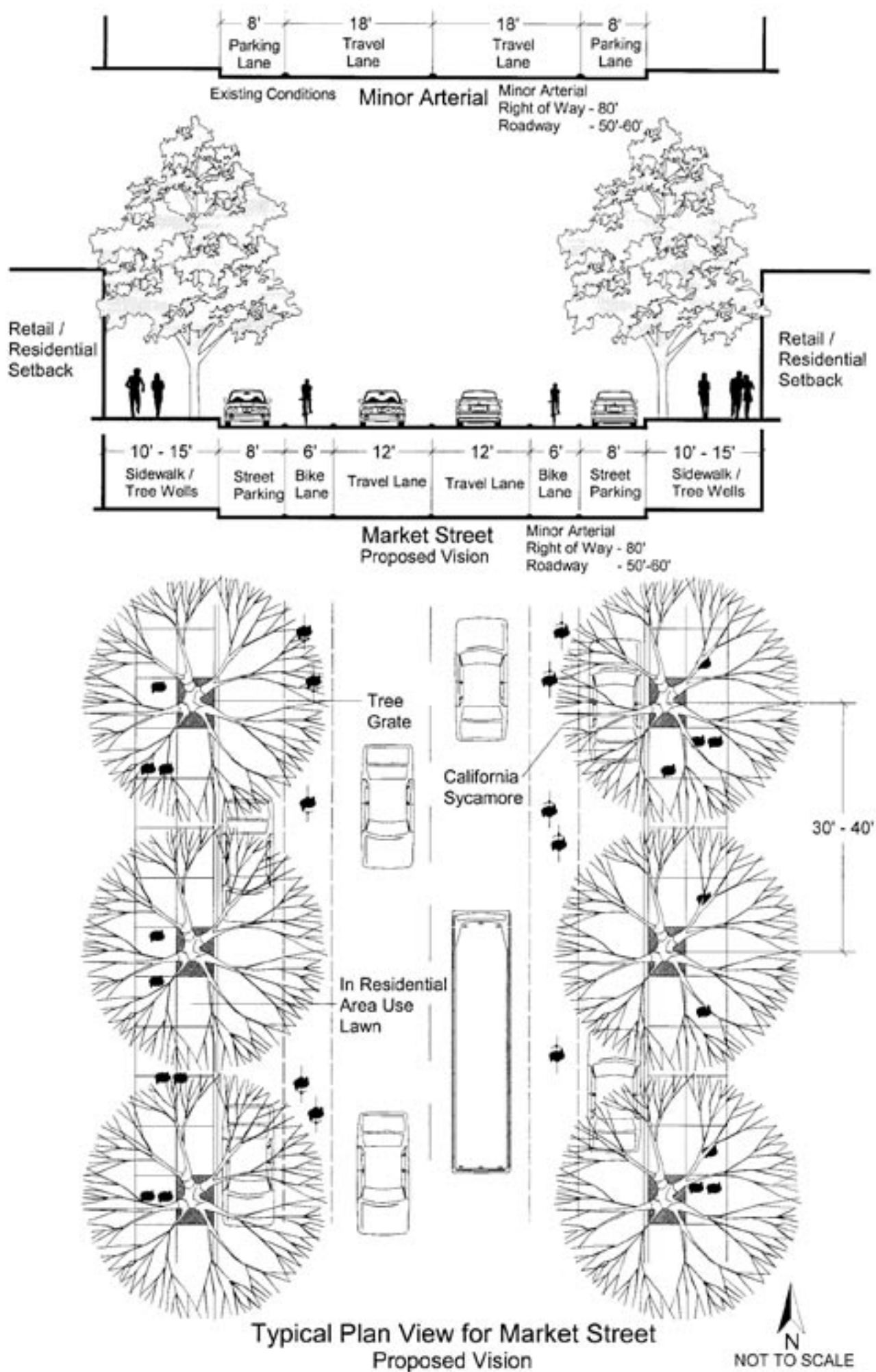
Regional or Major Arterial Streetscape Design



Regional or Major Arterial Amenity Zone



Typical Amenity Zone Elevation

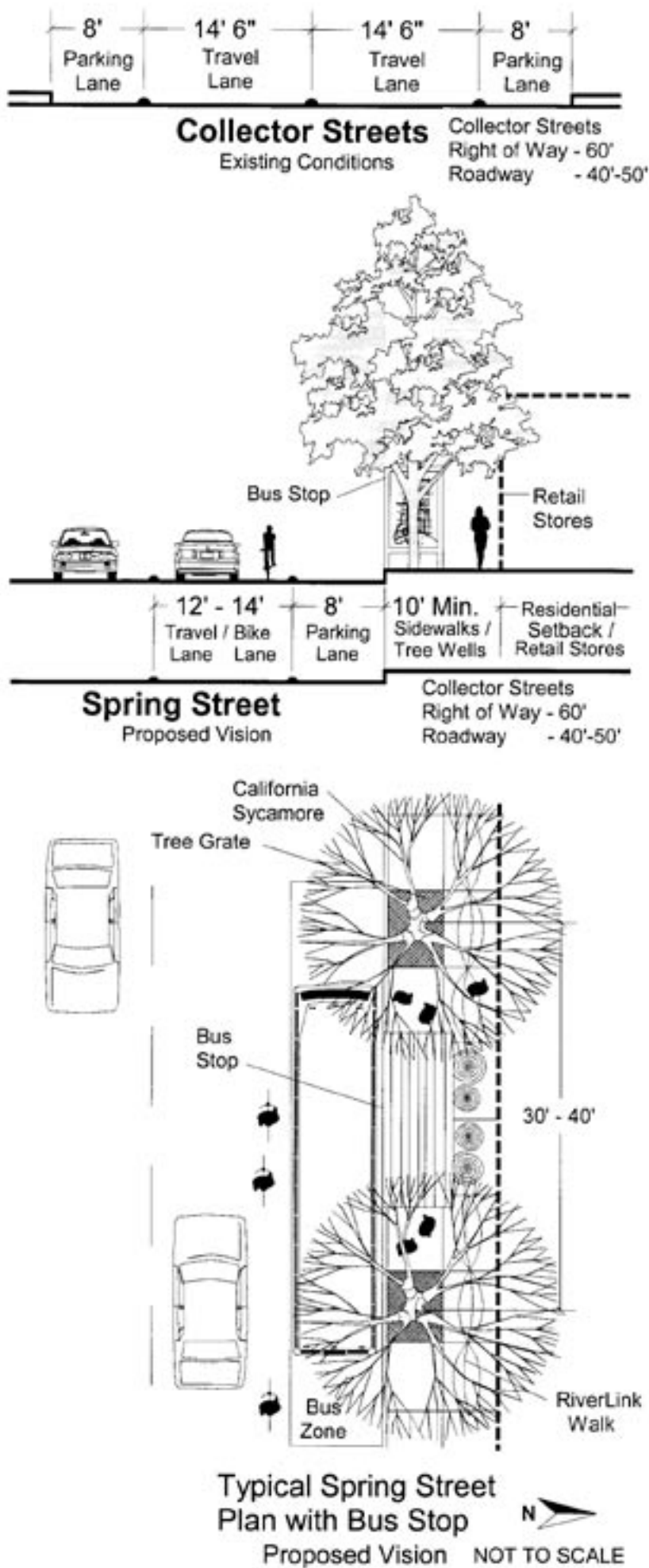


Minor Arterial Streetscape Design

MINOR ARTERIALS
Typical Design Example: Market Street

Like major arterials, minor arterials carry cross-town traffic, but they have less traffic volume. Typically in the westside of Long Beach, minor arterials have one wide lane of traffic going each way, with a parking lane abutting the curb. These streets do not have medians, and are lined with light industry, retail development, or residential homes. The sidewalks are generally 10' to 15' wide.

Design Response: Minor arterials have less traffic volume so the parallel parking is retained along the streets to serve as the major divide between pedestrians on the sidewalks and motorists. The travel lanes are narrowed to facilitate a Class II bike lane. The on-street parking does not allow for plantings along the curb except for evenly spaced trees in wells at least five feet minimum diameter. Tree grates used in the sidewalk will be ADA compliant with a smooth surface and slats perpendicular to traffic flow.



Collector Streetscape Design

COLLECTOR STREET
Typical Design Example: Spring Street

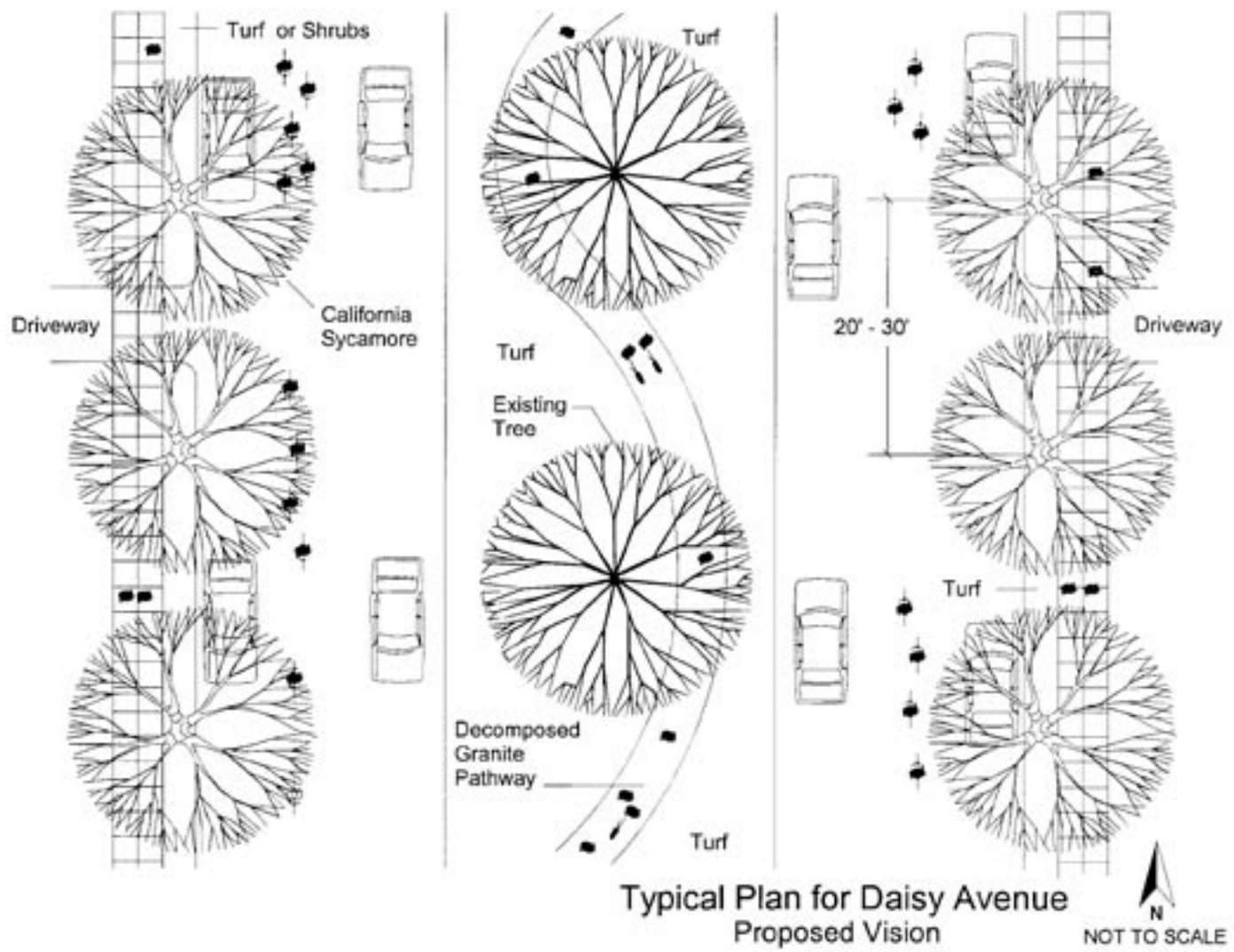
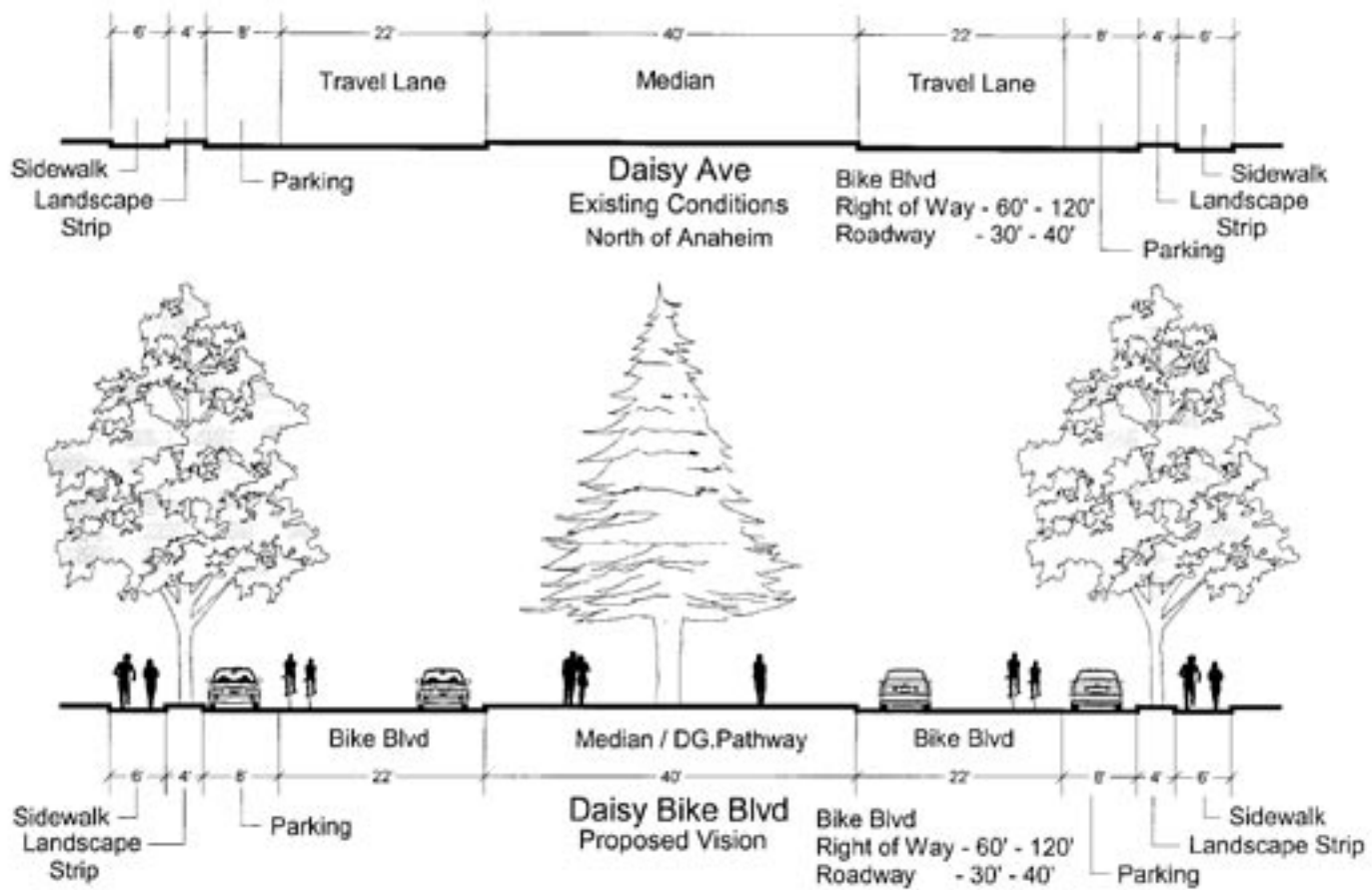
Collector streets pick up traffic from local neighborhoods and direct it to larger arterial streets. Typically, collector streets are lined with residential homes and some light commercial or retail development. As with the minor arterials, they have one lane of traffic in each direction and parking lanes along the curb.

Design Response: Along commercial and retail reaches, collector streetscape design mimics that of minor arterials. Parking will give way for bus stops where appropriate. Residential reaches are different in that they have narrower sidewalks and utilize tree lawns instead of tree wells and grates. Because there is less on-street parking in residential areas, tree lawns are planted with low maintenance shrubs and groundcovers, selected by city personnel and adjacent homeowners.

PARKWAY:
Typical Design Example: Daisy Avenue

Parkways are local streets specially designed with park-like features. The RiverLink system does not designate local streets as connecting pathways because the design team does not want to increase traffic volumes along them. However, Daisy Avenue presents a unique opportunity to provide a valuable north/south bicycle connection. Portions of Daisy Avenue are designed as parkways with wide medians that can stage community events. The medians are flanked by one-way streets, and fronted with residential homes.

Design Response: Daisy Avenue is designated a bicycle boulevard to encourage and promote safe bicycle travel. Bicycle traffic on the street is greatly encouraged by assigning bicycles the right-of-way and restricting vehicles on the street to local traffic only. The landscaped median provides parkland for community members and rest spots for bike commuters. The median will retain most of the existing turf because of its value as a staging area for cultural events such as the Christmas Pageant. A pedestrian path weaves through the median and understory shrubs, and grasses will be planted under trees and at appropriate locations along the path.



Parkway Streetscape Design

MEDIAN PLANTINGS

The median plantings use native trees, related plants, and stone spreads to denote inclusion in the RiverLink system and to show distance to the Los Angeles River greenway.

Each type of median planting has a specific grouping of understory shrubs or grasses that relates to an indicator tree, based on historical occurrence. They are inspired by the historic streambeds that once flowed freely to the Los Angeles River; instead of moving water to the Los Angeles River, they move people. There are three different types of median plantings to help orient and guide visitors along their way. The entire length of the east-west pathway streets and their associated medians will be divided into

approximate thirds and planted in the following manner. Tree specimen selection must be appropriate for use as urban street trees.

The following is the sequence of plantings starting at the gateways and moving towards the river:

- 1. After passing through a basin gateway connection, the medians in this section are planted with coast live oak trees (*Quercus agrifolia*), California coffeeberry (*Rhamnus californica*), and deer grass (*Muhlenbergia rigens*). Large granite boulders punctuate the plantings in these sections.
- 2. The median plantings midway through are planted with sycamore trees (*Planatnus sp.*), coyote bush (*Baccharis pilularis 'twin peaks #2'*), California encelia (*Encelia californica*),



Alder Zone Plant Material

Tree: White alder
Shrubs: Wild California rose, Black sage
Grass: common rush
Accent with spread decomposed granite

Sycamore Zone Plant Material

Tree: California Sycamore
Shrubs: Coyote bush, California encelia
Grass: Wild rye grass
Accented with river rock

Oak Zone Plant Material

Tree: Coast Live Oak
Shrub: California Coffeeberry
Grass: Deer Grass
Accented with large granite boulders

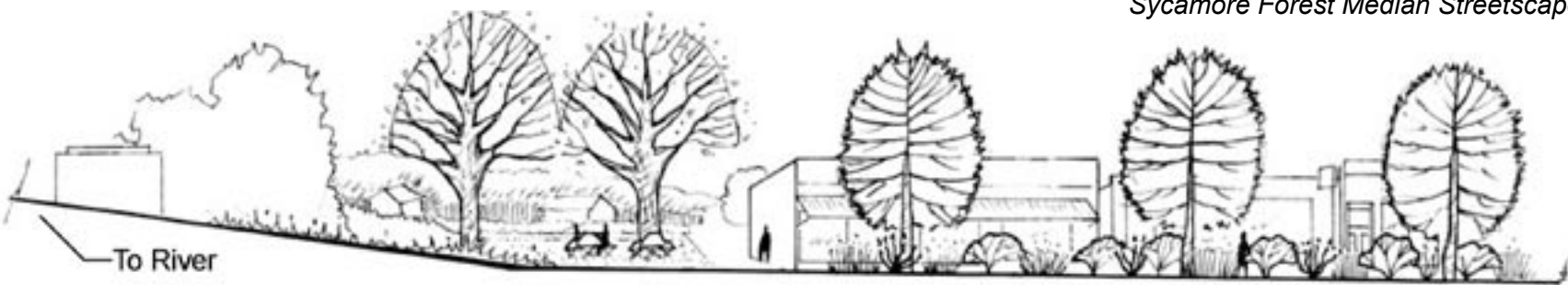
RiverLink Median Plantings Diagram



Oak Woodlands Median Streetscape

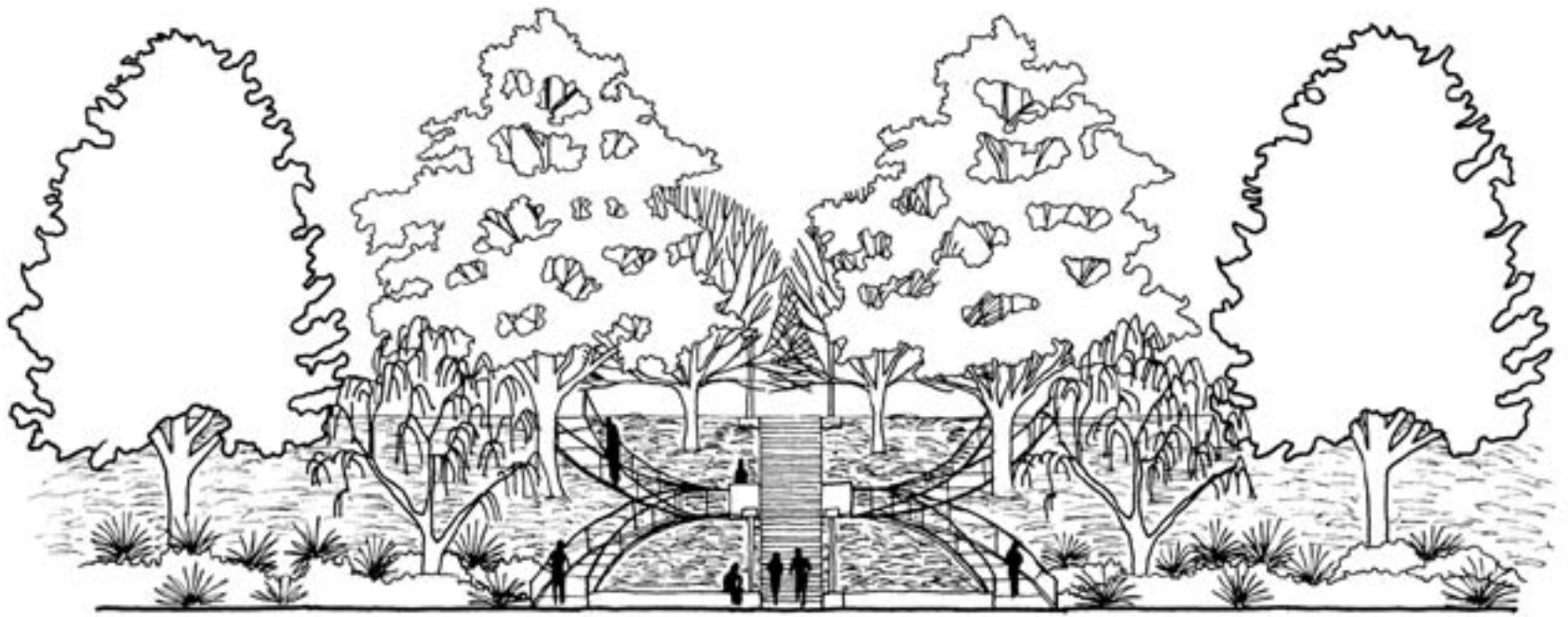


Sycamore Forest Median Streetscape



Cottonwood Grove

Alder Woodlands Median Streetscape
(Adapted from Lyle, 1999)



Typical Universal Access

and wild rye grass (*Elymus condensatus* 'canyon prince'). These medians are accented with river rock.

3. The medians located in the final third closest to the river are planted with white alder trees (*Alnus rhombifolia*), wild California rose (*Rosa californica*), black sage (*Salvia mellifera*), and common rush (*Juncus patens*). These medians are spread with decomposed granite.

4. At certain streets, namely at Willow Street, and to a lesser extent at Pacific Coast Highway, there are small pocket parks next to or straddling the eastside of the Los Angeles River bridges before entering into the RiverLink system. To aid travelers, residents, and area workers, the design team envisions picnic areas near the current sidewalks, with shady seating under cottonwood trees (*Populus fremontii*). There is also an opportunity for a picnic grove at Market Street just before entering the RiverLink system.

LOS ANGELES RIVER GREENWAY

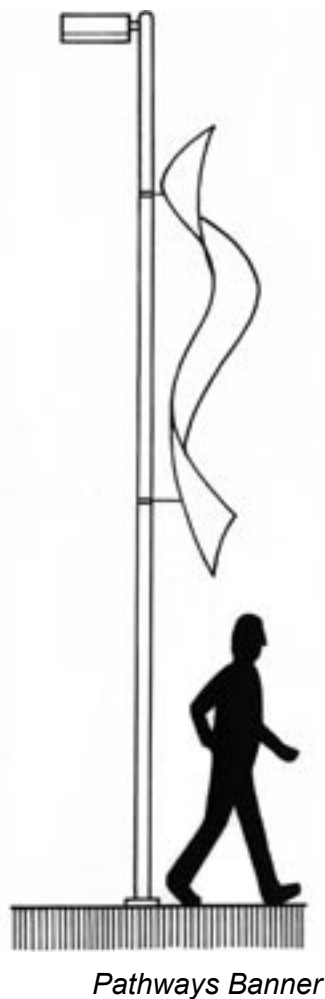
There are sections of the Los Angeles River greenway where abutting properties do not allow for parkland development, and thus, will not serve as destinations, but rather as pathways and connections. Typically, these areas have a landscape treatment on the down slope of the berm ending at the toe of the slope where the greenway meets the adjoining.

Design Response: The major concern in these areas is to provide a consistent landscape treatment along the river channel, creating pleasant pathways between the destinations. The typical landscape treatment, consisting of native plant species historically shown to have existed in the vicinity of Long Beach, can be applied anywhere along the river channel where there is no adjacent park site or greenbelt.

61



View of Spring Street Looking Toward River Channel

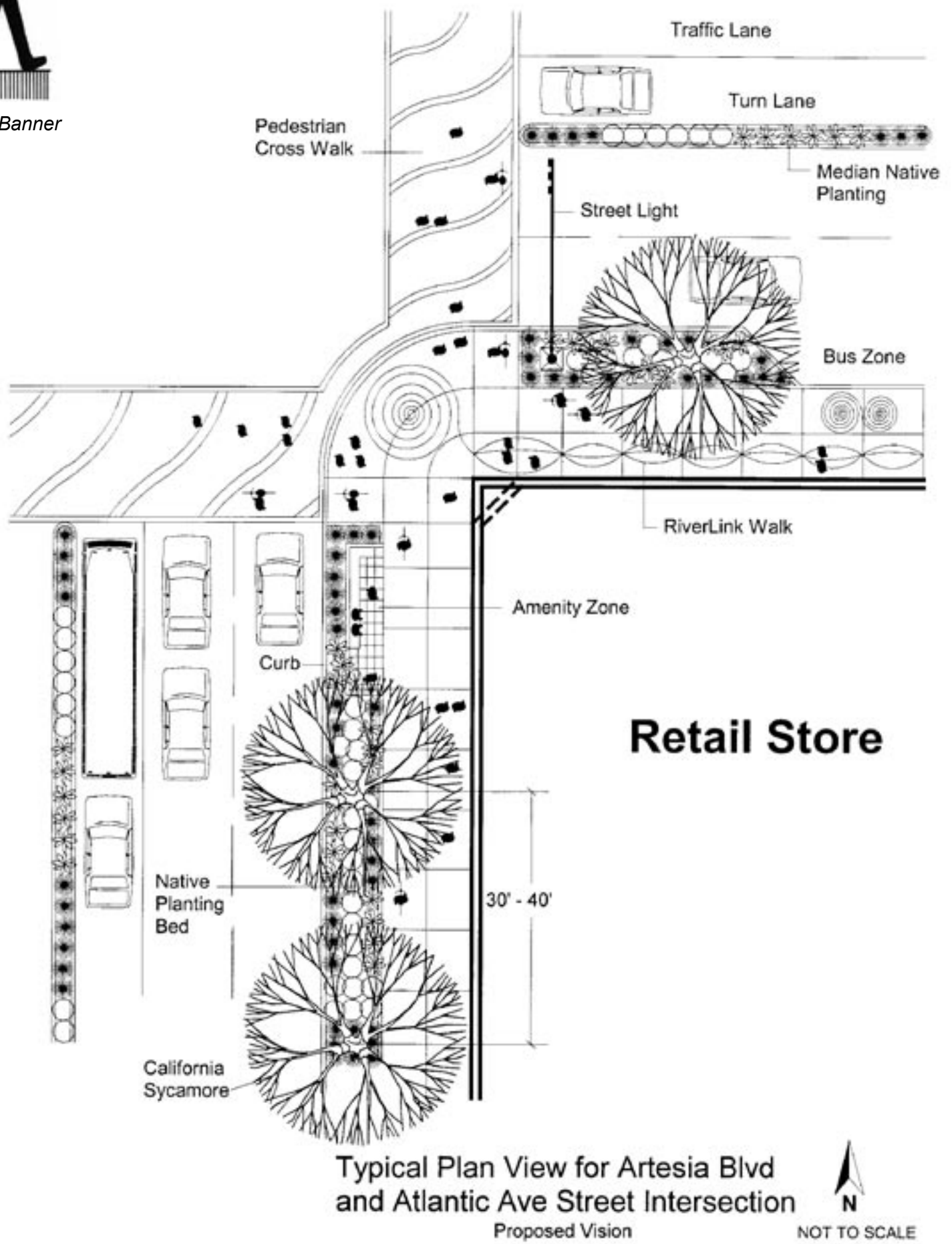


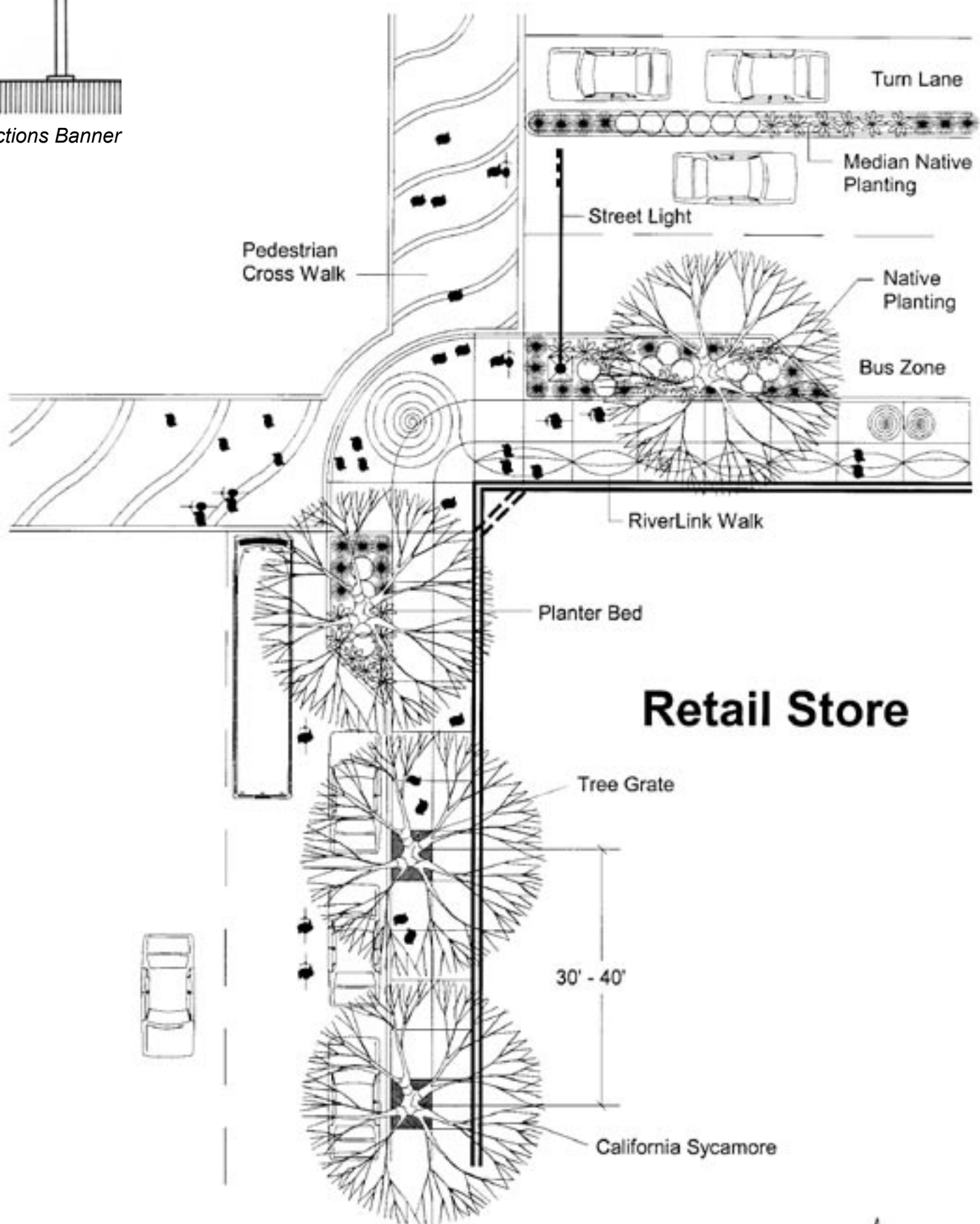
Wayfinding

Wayfinding signs will visually orient visitors to the river greenway. There will be two types of wayfinding devices; large monolithic landmarks, and smaller map kiosks. The large landmark devices, visible from great distances, orient visitors as to where they are along the river greenway. These structures capture peoples’ sightlines as they move along the river, drawing them toward destinations. The map kiosks assist in navigating around specific sites and parks. The top of the

map will always be oriented in the same direction as the reader to minimize disorientation, and simple internationally recognized symbols will be used when possible to denote amenities. Both wayfinding devices have a standard design concept, yet the elements of each will relate to thematic design guidelines.

Directional signage is used to direct visitors towards streets accessing the Los Angeles River, directional signs should be clear and easily read from the pedestrian level as well as from an





Typical Plan View for Anaheim Street and Magnolia Ave Intersection
 Typical Plan View for Willow Street and Chestnut Ave Intersection
 NOT TO SCALE
 Minor Arterial Streetscape Elements of Connections

automobile. They should have a standard look throughout RiverLink system in Long Beach.

Unifying design elements will be placed along the pathways to create a consistent image leading to the Los Angeles River. This will assist in wayfinding and navigation because people will instantly recognize which streets connect to the river greenway.

To signify pathways, imprints of the “RiverLink Walk” pattern will be imprinted onto the corresponding street sidewalk in the RiverLink system to signify the flow or direction to the river. Vertical elements, such as light poles with a RiverLink flow banner will help denote the way to Los Angeles River destinations. The design team recommends a standard streetlight design for the pathways, which will aesthetically connect people to the RiverLink system. The lighting fixtures will be designed to be energy efficient and will direct light downward to reduce glare into the night sky.

CONNECTIONS

Connections are the elements of the system that link together pathways. Connections occur where existing transit routes intersect RiverLink pathways, whether pedestrian, bicycle, or vehicular, with particular attention given to mass transit stops or stations. These places signify areas of momentary collection before providing connection to the continuing system and the ultimate destination.

Design Response: To signify connections, imprints of swirls or eddies are stamped at corresponding areas in the RiverLink system. These will be placed at the foot of transit stops or entries into transit stations, and on the corners of the connection streets. In addition, a light pole with a swirl banner, as a vertical element, will denote points where connections occur.



View of Golden Shore Wetlands with Bird Blind Overlooks and Los Angeles River Gateway

DESTINATIONS

Destinations are the centers of activity in the RiverLink system and are at the terminus of the pathways, providing valuable open space and parks along the Los Angeles River. Entrance and regulatory signs inform visitors of entrance points to the river greenway, as well as park rules and regulations. RiverLink entry signage to parks, greenways, and bikeways will take the place of those signs outlined in the Los Angeles River Master Plan. The signs may take a sculptural or artistic form, derived from the thematic design guidelines appropriate for those neighborhoods adjacent to the park site.

Beginning at the mouth of the river and working north, the destinations are: the Golden Shore Wetlands, the Drake Greenbelt, Magnolia Yards, the Wrigley Greenbelt, Wrigley Heights Park, the Dominguez Gap Wetlands, the Deforest Wetlands, and Deforest Park.

Golden Shore Wetlands

The Golden Shore Wetlands are located near the mouth of the Los Angeles River along the east bank. These estuary wetlands were recently restored and are the first park attraction along the Los Angeles River greenway.

Design Response: Monitoring by professional wetlands restoration experts will continue on this site. The design team was not privy to the final plans for the site, nor to the progress of the restoration efforts to this point, but recommends a concept to augment the site that includes several elements appearing throughout the RiverLink system. The design team suggests the chain link fence be removed, and that signage be installed to mark entry, post park regulations, assist in wayfinding, and interpretation of the wetlands. The concept features RiverLink-style “overlook” bird-blinds and bird nesting structures that allow visitors to view the waterfowl and that provide for interpretive signage, while maintaining a physical and visual separation between people and the sensitive wildlife. Native landscape treatments with seating provide areas of shaded respite. A gateway signifies the beginning of the Los Angeles River just north of the site at the LARIO Bikeway.

Interpretive signs will educate visitors about the Golden Shore Wetlands. The RiverLink interpretive signs will take the place of the standard interpretive signs outlined by the Los Angeles River Master Plan, so that a more integral directional system can be achieved. These signs will tell about the physical, natural, and cultural history of the Los Angeles River and Golden Shore Wetlands. Interpretive signage will take on thematic design elements appropriate to adjacent neighborhoods.

Drake Greenbelt

The Drake Greenbelt is a series of postindustrial sites adjacent to the existing Drake Park that will require linkages into the community and reclamation efforts by the City of Long Beach.

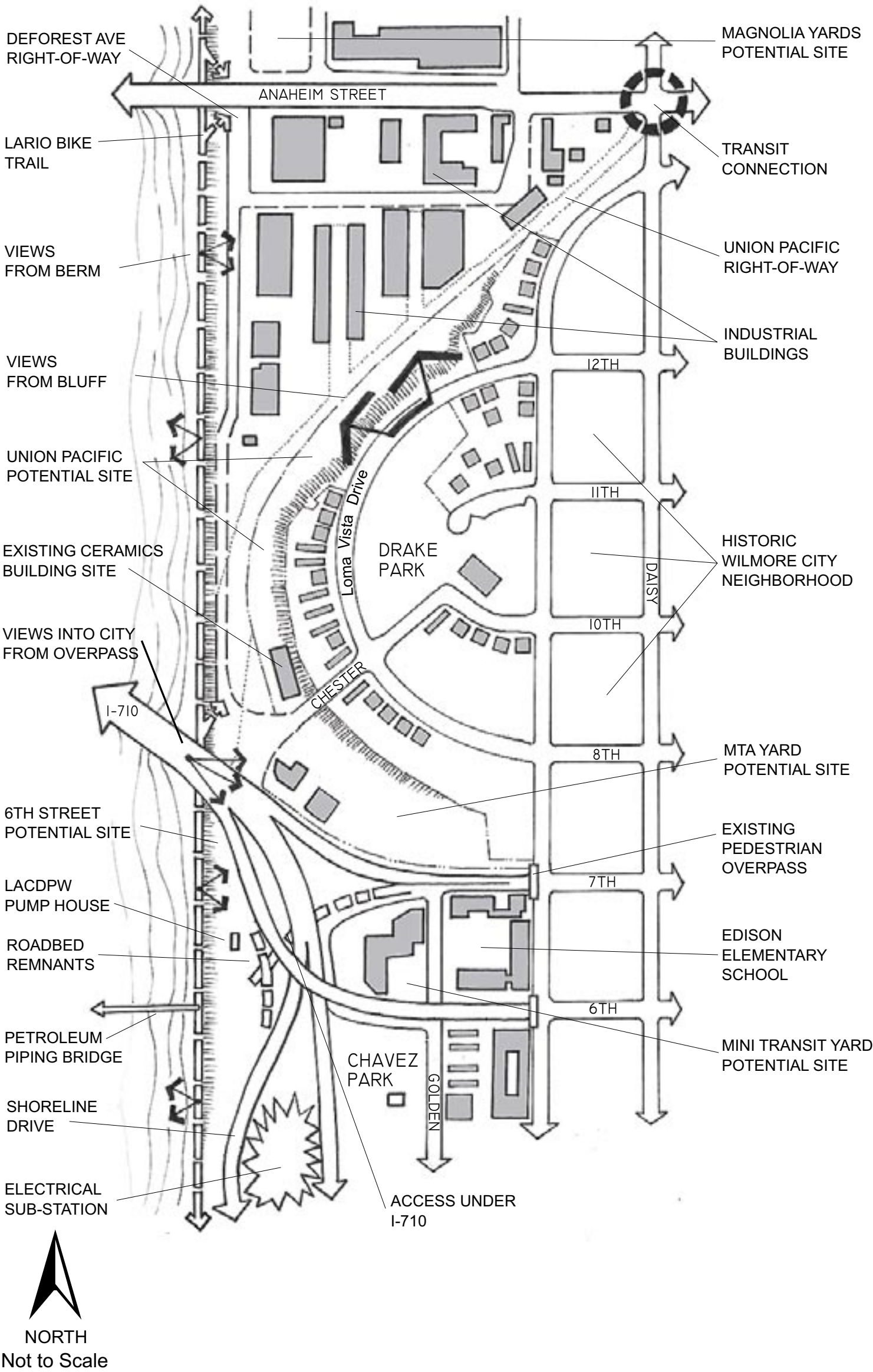
The site is approximately 32 acres, consisting of former Union Pacific Railroad properties and right-of-ways that stretch from Daisy Avenue southwest to the river channel. Much of this land has oil and heavy metal contamination. Views from Loma Vista Drive look out over the railroad property and into the southern end of Magnolia Yards. An existing ceramics warehouse sits adjacent to Chester Place and two MTA buildings are located across the street in the MTA Yards, which is contaminated with hydrocarbons and petrochemicals. Across the freeway, the MTA also owns a small parcel for mini-bus transit. This parcel has potential to be acquired as part of the Drake Greenbelt. West of the Mini-Transit buildings is a parcel of bare ground adjacent to the river channel which includes an LACDPW pump house and remnants of road construction that was never completed. Additionally, nesting sites for the federally threatened snowy plover (*Charadrius alexandrinus nivosus*) have been recorded on this bare site. Phytoremediation processes are recommended by the design team to assist in the reclamation of the site. It is important to note that the city will not purchase any of these properties until they receive a letter of “No Further Action” regarding the contamination cleanup.

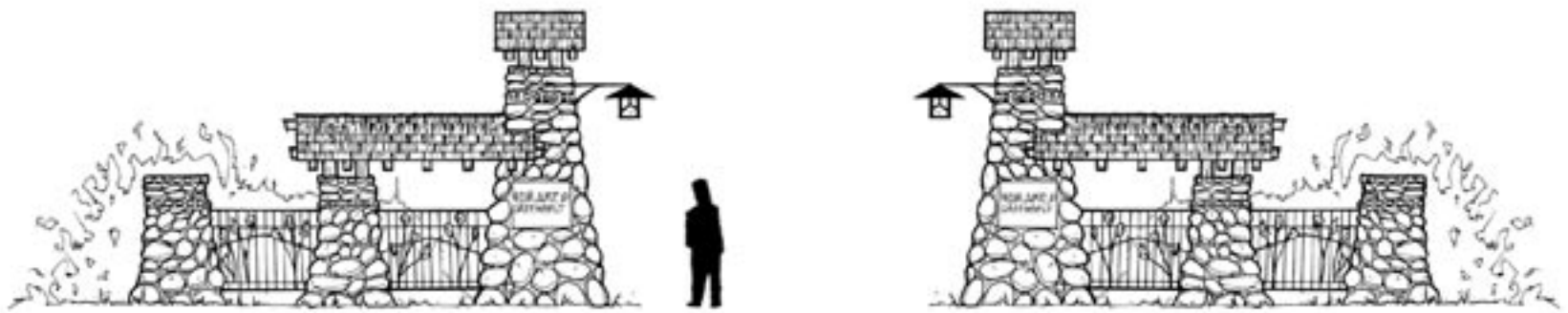
Based on the project goals and community input, the following program was developed for the Drake Greenbelt:

- **Passive Recreation:** The community specifically asked for more passive recreational opportunities, such as walking trails, unprogrammed open spaces, and public forum spaces for informal gatherings. Active recreation was seen as too loud and disruptive to the environment.
- **Eco-Revelatory Design:** This site will include educational opportunities and interpretive signage showcasing the ecological systems acting on the site over time. This can be coordinated with local schools and community groups to encourage environmental learning.
- **Community-Building:** Areas will be incorporated that encourage activities to bring the community together. This fosters community strength and ownership in neighborhood parks; communities then work together to solve local issues.
- **Protection of threatened species habitat:** The Drake Greenbelt will preserve appropriate habitat areas for threatened species such as the snowy plover.

Drake Greenbelt Site Analysis

66





Drake Greenbelt Gateway at Anaheim Street and Daisy Avenue

The following criteria were established from the project goals and objectives to guide the design team in the successful design of the Drake Greenbelt.

- Create connections to surrounding neighborhoods by connecting to existing sidewalks and pedestrian paths and linking to the bicycle network.

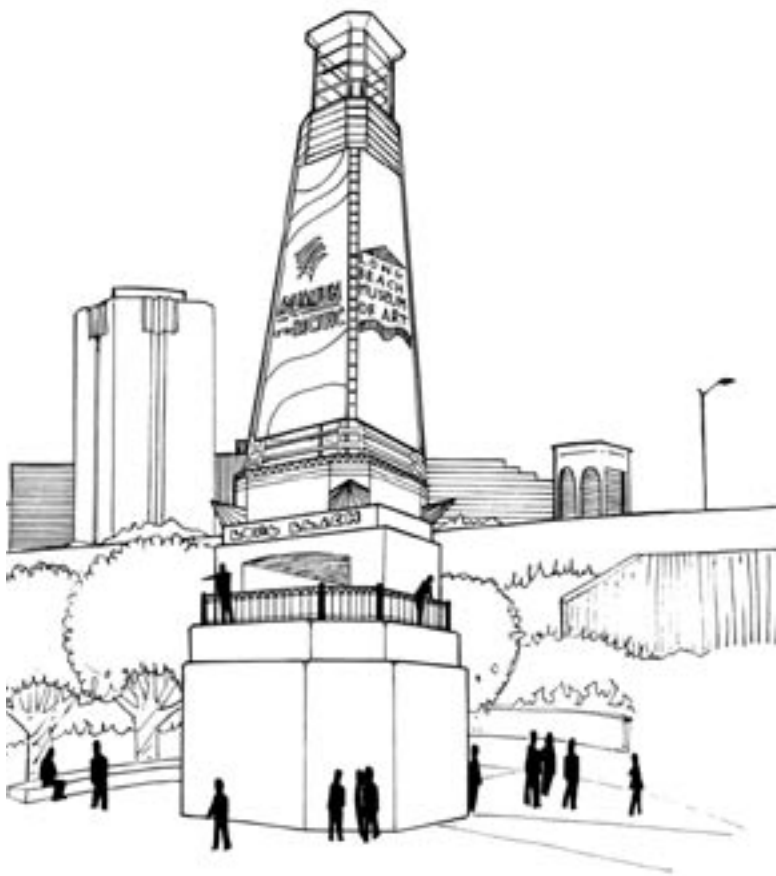
and by providing interpretive signage for those features.

The Drake Greenbelt amenities will have a Craftsman amenity style response due to its proximity to the Willmore City historic neighborhood, with its predominance of Craftsman- and Bungalow-style homes. Additionally, this will also match the recent erection of the Craftsman-styled recreation center in nearby Cesar Chavez Park, just south of the site.

Gateways

Gateways into the Drake Greenbelt will display thematic designs of the Craftsman style and will be placed at the entry points on Chester Avenue, Deforest Avenue, Seventh Street, and at the intersection of Anaheim Street and Daisy Avenue. The gateway at Anaheim Street and Daisy Avenue is of major significance because it is a major transit connection in the RiverLink system.

Located between the terminus of Chester Place and the LARIO Bikeway is the RiverLink Gateway Plaza, which signifies the heart of entry from the city into the RiverLink system. At the south end of the plaza, rising over the park and visible from the freeway, is the Gateway Plaza Monument, designed and scaled to represent Long Beach's maritime, Art Deco and industrial influences combined with the prominent high-rise buildings of the downtown. The monument is intended to have large vertical panels in four directions to allow for changeable lithographic billboard style signage advertising city events like upcoming conventions, and attractions like the Aquarium of the Pacific and Long Beach Museum of Art exhibits. A beacon light on the apex will mark the city's place in the night sky and will be visible from the mountains to the sea.



RiverLink Gateway Monument

- Enhance educational opportunities by providing interpretive signage and outdoor classrooms for school use.
- Encourage the creative reuse of existing infrastructure by programming adaptable uses for renovated buildings.
- Encourage walking and bicycling by connecting to the proposed bicycle network and by providing safe paths wide enough to accommodate bikes and pedestrians.
- Optimize the urban forest with groupings of native trees and understory shrubs.
- Provide passive recreational opportunities, which will create a relaxing atmosphere in the park.
- Enhance community-building activities by creating spaces for activities such as performances or gardening.
- Enhance connections to the natural and physical environments by re-creating natural landscape features onsite, such as wetlands,

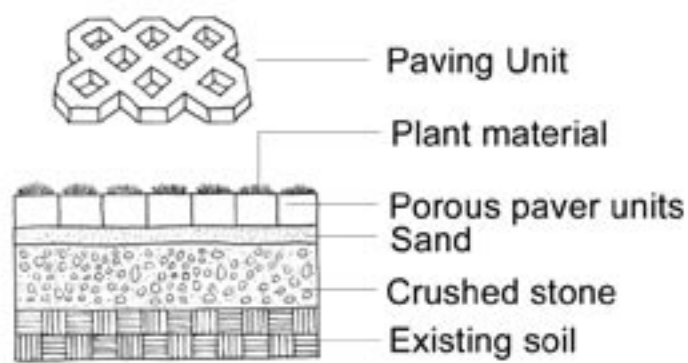
Pathways

Pathways throughout the Drake Greenbelt will allow universal access and will direct visitors towards destinations with wayfinding devices such as landmark features and directional signage.

- Movement through the Greenbelt will be directed along paths that provide universal access to all. Pathways will be of two different widths: the main spine, 12-15 ft wide, allowing pedestrians and bicycles; and smaller paths, 8-10 ft wide for pedestrian-only travel. All paths have a maximum slope of less than 5%. The main spine will connect all the major features of the site and provide access to the LARIO Bikeway.

Drake Greenbelt Site Plan





Permeable pavers offers specific and distinct advantages for controlling water runoff. Reinforced pavers can provide a highly durable, yet permeable grassy pavement surface capable of supporting vehicular loads, well suited for parking lots.

Permeable Paving Detail

- Wayfinding devices along the pathways will direct the visitor to different amenities associated with the greenbelt. To minimize disorientation, the top of the map kiosks will always face the same direction as the reader. Landmark features will denote special points of interest, will be visible from far distances, and will give visual clues about the relative location of amenities.

Connections

The community and the greenbelt are connected through culture and nature. This allows the site to reflect community changes over time.

Cultural Connections

- Pedestrian travel is promoted by creating connections to the existing Drake Park. Towards the north of the site, Loma Vista Drive will be split, creating two cul-de-sacs. Between the cul-de-sacs, ramped pathways connect the existing park on the upper part of the ridge with the new greenbelt below. This allows for free flow between the two parks so that

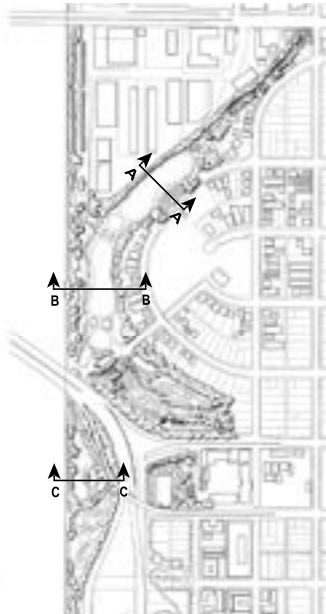
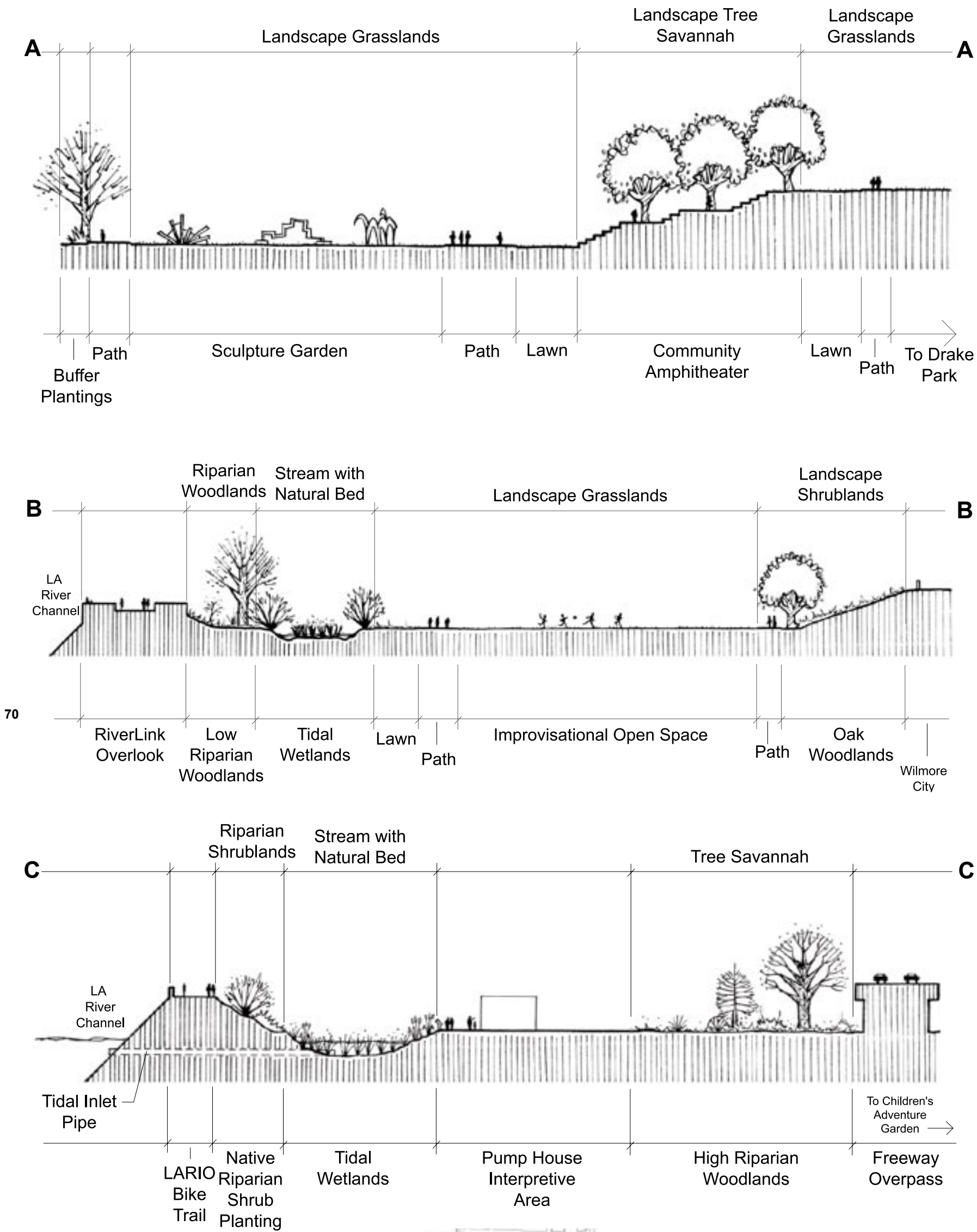
functionally, they begin to act as one. Another connection is created on the southern portion by enhancing Chester Avenue as it comes down the slope from the existing park. This road will terminate into a public space and nature center. The greenbelt will open to the community at Loma Vista Drive and Seventh Street, allowing pedestrian access. Pedestrian access is also created from the LARIO Bikeway. Current access points are enhanced at Anaheim Street, near the I-710 overpass, and at the Sixth Street Wetlands site, and one new access point is added at the terminus of Golden Avenue.

- Bicycle travel is promoted chiefly by enhancing access to the LARIO Bikeway at the aforementioned points, and by creating an access node at the intersection of Anaheim and Daisy Avenue. Designated as a bicycle boulevard, Daisy Avenue encourages the use of bikes, and the 14th Street Extension, located one block north of Anaheim Street, also promotes bicycle travel. Both create bicycle-friendly routes from surrounding neighborhoods into the greenbelt. Local riders can also access the site at Chester Avenue and through the bike tunnel at the Sixth



Pathway from Anaheim Street and Daisy Avenue Gateway

Drake Greenbelt Sections



Drake Greenbelt Sections Map

■ Design Concepts

Drake Greenbelt Urban Demonstration Garden



Drake Greenbelt Children’s Adventure Garden



Street site. These routes allow passage through the main portion of the greenbelt, as well as easy access to the LARIO Bikeway.

Automobile access is not encouraged, though not ignored. It is reasonable to expect that some people will choose to drive to the park and others may need to drive due to handicaps, injuries, or other impairments. This type of access will be created at the terminus of Chester Place. A small parking lot serving the park and the demonstration garden will provide universal access to the greenbelt’s amenities. Additional parking is also located on the Deforest Avenue right-of-way, featuring permeable paving surfaces to reduce runoff.

Natural Connections

■ Native and naturalized plantings will create connections between the greenbelt, the community, and the history of the area. Habitat classifications include landscape tree savannah, landscape forest, landscape grassland, emergent and tidal wetlands, and back dunes. Plantings consist of different aged plants that will regenerate themselves, building successional regenerative groupings of trees and shrubs.

■ Wildlife value will be enhanced by the urban forest created in the greenbelt and along pathways. The re-created habitats will attract birds and small mammals using the Los Angeles River corridor into the greenbelt and will connect the people of the community to the place. A special back dunes habitat will be preserved and enhanced south of the Sixth Street wetlands to protect the threatened snowy plover, which has been recorded in the area. Prohibiting access and fencing off the area to park users and dogs will protect this habitat.

Tidal influences currently affect the river as far north as Anaheim Street. Wetlands using tidal currents will be re-created in the Sixth Street site, promoting habitat and educational opportunities through the demonstration of plants, wildlife, and natural processes. The tidal wetlands will not clean any pollution; they will serve only for recreation and the demonstration of this rare habitat.

Destinations

Destinations in the Drake Greenbelt will provide amenities addressing the needs outlined by the community. The major destinations are designed

to be never more than a few hundred yards apart, which creates a relatively even distribution across the park. A rhythm is established along the paths by the continual recurrence of the destinations (Alexander, 1977).

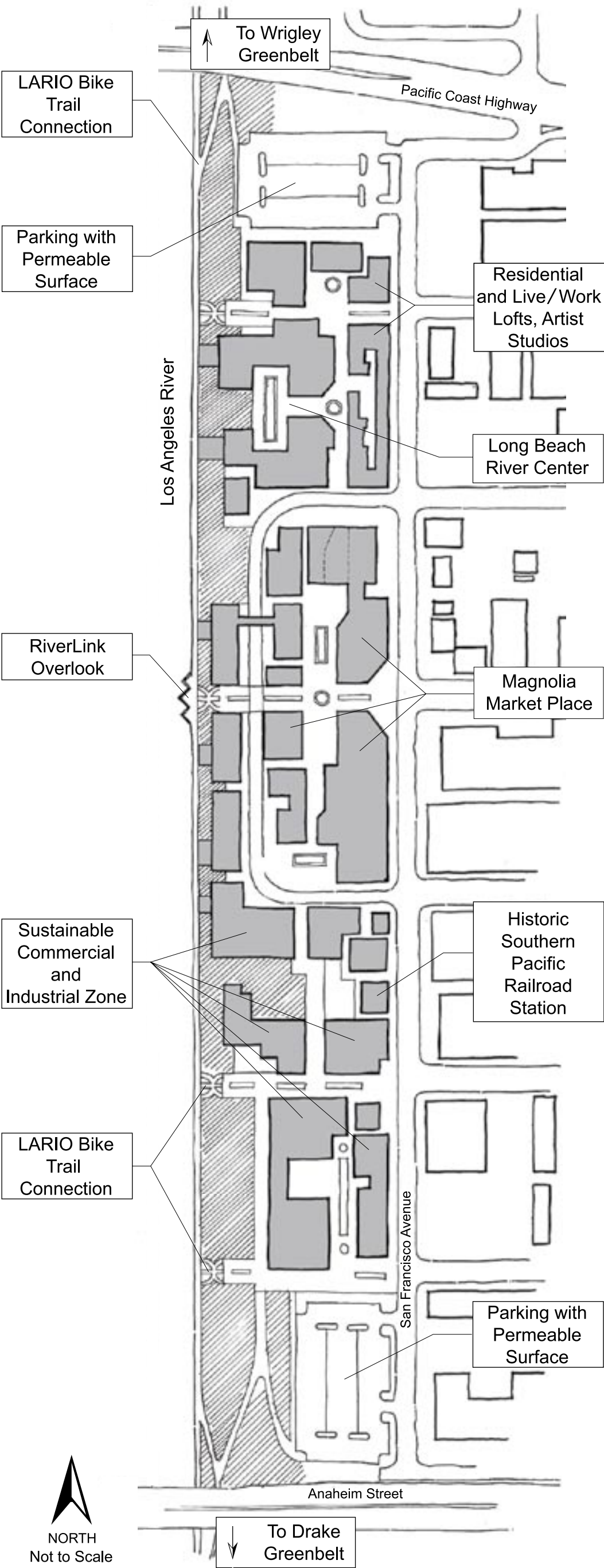
- Sculpture gardens line the pathway into the main portion of the greenbelt from the access node at Anaheim Street and Daisy Avenue. The public sculpture will be by local artists willing to participate in the project, and will change periodically.
- A community amphitheater will be located along the ridge between the existing Drake Park and the new greenbelt. This will become a place where the community can hold formal and informal gatherings and discussions, creating a safe place where different groups can come together. Local schools may also use the space for outdoor performances and educational series.
- The RiverLink Gateway Plaza, located at the terminus of Chester Avenue, will become a major gathering point for visitors to the site. It is the main public space of the site and will lead the visitor towards any amenity. The RiverLink Gateway Plaza will be the space most recognized by the community and will draw people because of its monumental landmark.
- Pathways weaving through the park define improvisational open spaces. These spaces have no specific programming; they are intended to be open areas for the use of the community. The lack of programming is integral to the design of these spaces, allowing them to be flexible. They can be used for outdoor fairs, farmers markets, or for an informal soccer game. To read more about the idea of improvisational open spaces, refer to Appendix E.
- The Urban Demonstration Garden will showcase planting strategies and design techniques for typical urban situations which residents may encounter. These demonstrations can include: removing lead from contaminated soil, retrofitting urban landscape, transforming a vacant lot into a community garden, reducing urban runoff, conserving water, and enhancing urban nature and urban habitat. A plant doctor can also be available so community members can pose plant questions. An urban nature center is located adjacent to the garden providing docents to maintain the garden as well as lead tours. The nature center will house several offices and a lecture room for community use. This center could expand into a functioning research center in the future if the opportunity arises.
- The Sixth Street wetlands will require piercing inflow and outflow openings through the river channel in order to use the tidal influences and river water to create perennial tidal wetlands along the foot of the berm. However, a compre-

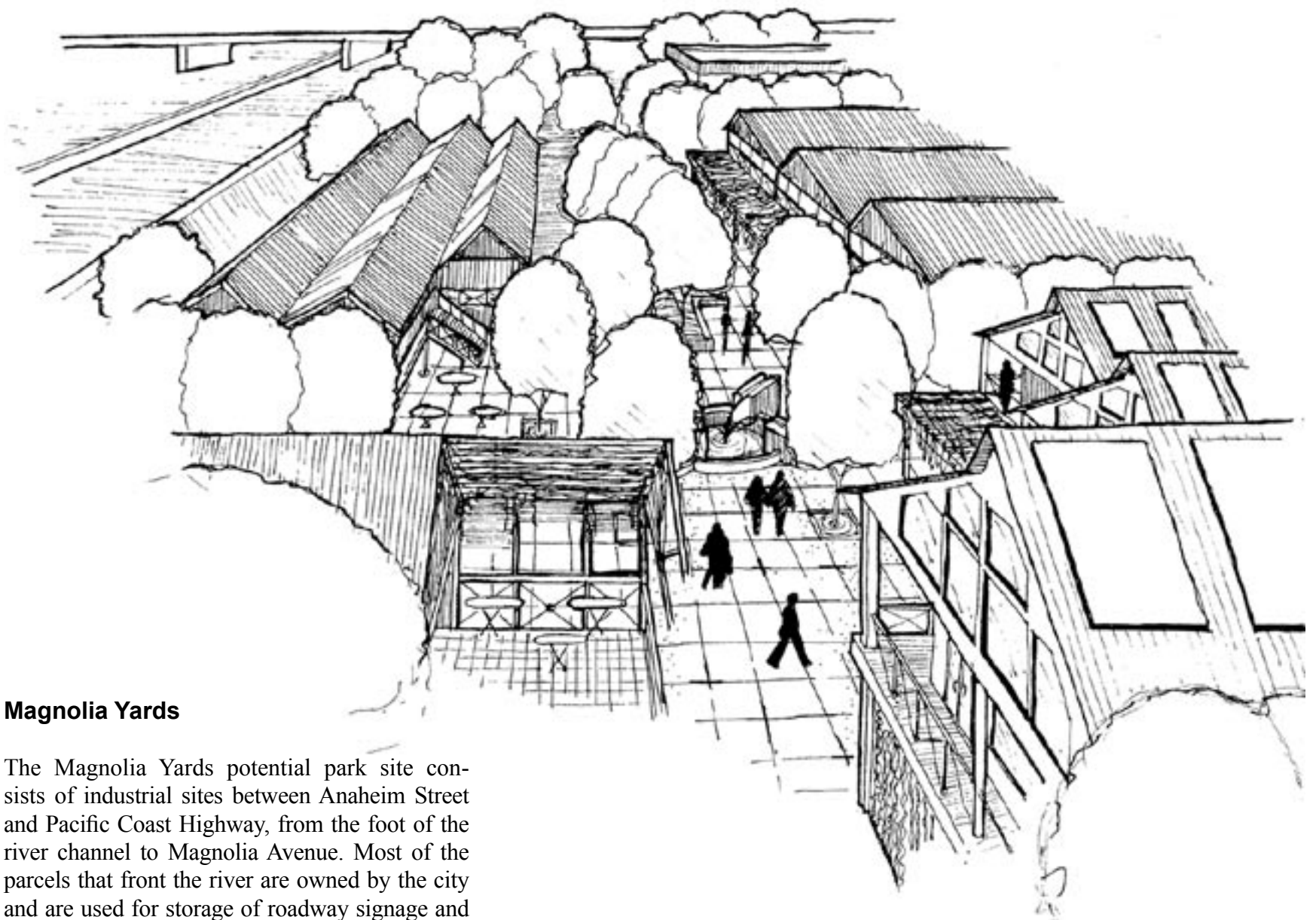
hensive engineering and hydrology study should be carried out to assess the feasibility of creating tidal-influenced wetlands at this site. Overlooks along the pathways will provide visitors areas to rest and bird-watch over the wetlands.

- The Wetlands Interpretive Station is located around the existing County of Los Angeles Department of Public Works Pump Station, which is still in active use. Service access will be provided to the pump house; however, the surrounding area will feature interpretive signage directed at the hydrologic and ecosystematic functions of the tidal wetlands.
- The Children's Adventure Garden sits adjacent to the existing Edison Elementary School, providing a safe place for children to play. The playground features spaces for both programmed and unprogrammed learning, and supports informal play by not posting any "no" signs. The site contains elevated walkways for adults, is buffered from heavy traffic, and is visually accessible, creating a safe space universally designed to include everyone (Westphal, 2003). The Mini-Transit building on the west side will remain and be adaptively reused to fit the new programs for the site. The building will provide sheltered classroom space associated with the school and the adventure playground, and will separate the playground from the community garden plots located on the northern and western portions of the site.

The community gardens provide valued garden space for the heavily urbanized area, and will be open to the public for a small security fee. Local schools can participate in the gardens, teaching students the value of growing their own food. This entire site provides an interactive learning experience for children, teaching the relevance of plants in everyday life, as well as the skills needed to grow food. It also provides adults with gardening opportunities and strengthens the community by providing an opportunity for intergenerational learning and sharing.

Magnolia Yards Concept Plan





Magnolia Yards

The Magnolia Yards potential park site consists of industrial sites between Anaheim Street and Pacific Coast Highway, from the foot of the river channel to Magnolia Avenue. Most of the parcels that front the river are owned by the city and are used for storage of roadway signage and construction materials. The city is currently in the process of transferring the stock and equipment at these sites to other locations south of the airport in order to make these sites available for possible redevelopment. The Magnolia Yards sites will have an industrial flavor to match the larger scales and utilitarian styles of the surrounding industrial buildings and the massive industrial infrastructure just below Pacific Coast Highway. Included in the southeast part of the property is the relocated Southern Pacific Rail Station, a historic landmark, which is a fine example of Spanish Mission architecture as seen in the early part of the 1900s.

The city desires to add live/work studio lofts to the area. This will help develop a warehouse district featuring galleries, small retail shops, and restaurants, as well as the studio lofts. Such development creates economic vitality in an underutilized area within walking distance of downtown Long Beach. The development area also boasts prime river frontage, good access to I -710 from Anaheim Street, and good access to the freight railway tracks. The development area encompasses the industrial zone just west of the Washington School to the east bank of the Los Angeles River. The focal point of this zone is the Magnolia Yards development and the planned 14th Street park extension, terminating at the yards with the Magnolia Market Place, the Long Beach River Center, a sustainable commercial and industrial zone, and a museum celebrating the city's history housed in the historic Southern Pacific Rail Station. The Magnolia Market Place will feature shops, restaurants and a regular farmers and artisans market. The Long Beach River Center will house educational facilities such as a community college extension focusing on sustainable trades and industry. The north end of the development site will feature residential lofts, live/work studios and galleries. These new uses will be housed in

former industrial buildings or on former industrial sites. In adaptive reuse of industrial buildings, the building shell can be upgraded and act as a tent over substructures built within, which house the individual shops and other leaseable units. If the bike station downtown needs to relocate, the design team recommends that a home be found for it in this area due to Magnolia Yards' proximity to the LARIO Bikeway.

A process called deconstruction can be used to remove existing buildings that cannot be reused. Deconstruction involves carefully dismantling the building to save intact building materials for future use. This process is labor intensive but can save money in the long-term, protect cultural heritage of architectural elements, and is more environmentally friendly than standard demolition practices. Deconstruction is best done with a labor force taken directly from the community, creating job experience and community support for the development project. Magnolia Yards is a wonderful opportunity to use deconstruction of unusable buildings as an educational tool, a sustainable job training initiative, and a community building experience.

The Magnolia Yards development and surrounding area will be designated a Sustainable Economic Empowerment Zone. The businesses in this type of zone strive "to slow the depletion of natural resources or sustain, restore and expand their availability" (Hawken, 2003). Additionally, these businesses must strive to lower pollution or be pollution-free, and to provide meaningful employment. The following are recommended types of businesses for the Sustainable Economic Empowerment Zone:

- Elimination of fossil fuel use
- Hydrogen fuel cell fabrication and hydrogen vehicle manufacturing
- Solar panel manufacturing and installation
- Wind power turbine manufacturing and installation
- Locally derived crafts and materials
- Cooperatives for skilled local trade persons
- Gallery space for local artisans
- Wholesale/retail markets for locally harvested and quarried materials
- Urban food production
- Cooperative farmers’ market
- Health food markets
- Hydroponics food production
- Organic and native plant nurseries
- Pulling materials out of the waste stream
- Recycling facilities
- Salvage facilities for materials such as architectural salvage and used lumber
- Repair or retrofit facilities for manufactured items normally placed in landfills

The City of Long Beach can use the following criteria to select and plan for businesses that follow these manufacturing and/or business practices, and can offer incentives for starting or relocating to this zone:

- *All natural*: The sale and manufacture of products that contain no hormones, artificial flavorings, colorings, or preservatives.
- *Chemical-sensitivity safe*: The sale and manufacture of products that contain no synthetic dyes, fragrances, or harmful chemicals.
- *Cruelty free*: The sale and manufacture of products that cause no harm to animals during the making of the product.
- *Fair trade*: Manufacturing that guarantees a fair living wage to the local workers, as well as any workers located overseas.
- *Fossil fuel free*: The sale and manufacture of products using biological, climatological, and/or natural processes instead of industrial or chemical processes.

- *Non-toxic*: The sale and manufacture of products that contain no toxins or produce harmful effects in people, animals, or the environment.
- *Organic*: The sale and manufacture of products that contain ingredients grown and processed according to the USDA’s National Organic Standards and the California Organic Foods Act of 1990.
- *Organic Foods Act*: using no synthetic pesticides, herbicides, artificial fertilizers, or genetically modified organisms.
- *Recyclable/reusable*: The sale and manufacture of products that are either made from recycled materials, are recyclable, or are easily reused.
- *Socially Responsible Businesses*: Businesses whose practices provide safe and healthy working conditions, fair wages and respect for their employees, here or overseas (Newman, 2003).

Businesses meeting these suggested criteria will be eligible for financial incentives because they enhance the city’s social, natural, and economic environment. The design team suggests the City of Long Beach Economic Development Commission conduct an economic feasibility study for such a program. The design team anticipates this type of zone will match the city’s 2010 strategic “Economic Opportunity for All” plan goals and will have possible public relations value that will give the city competitive advantage in attracting the regenerative and sustainable businesses of the 21st century (City of Long Beach, 2001).

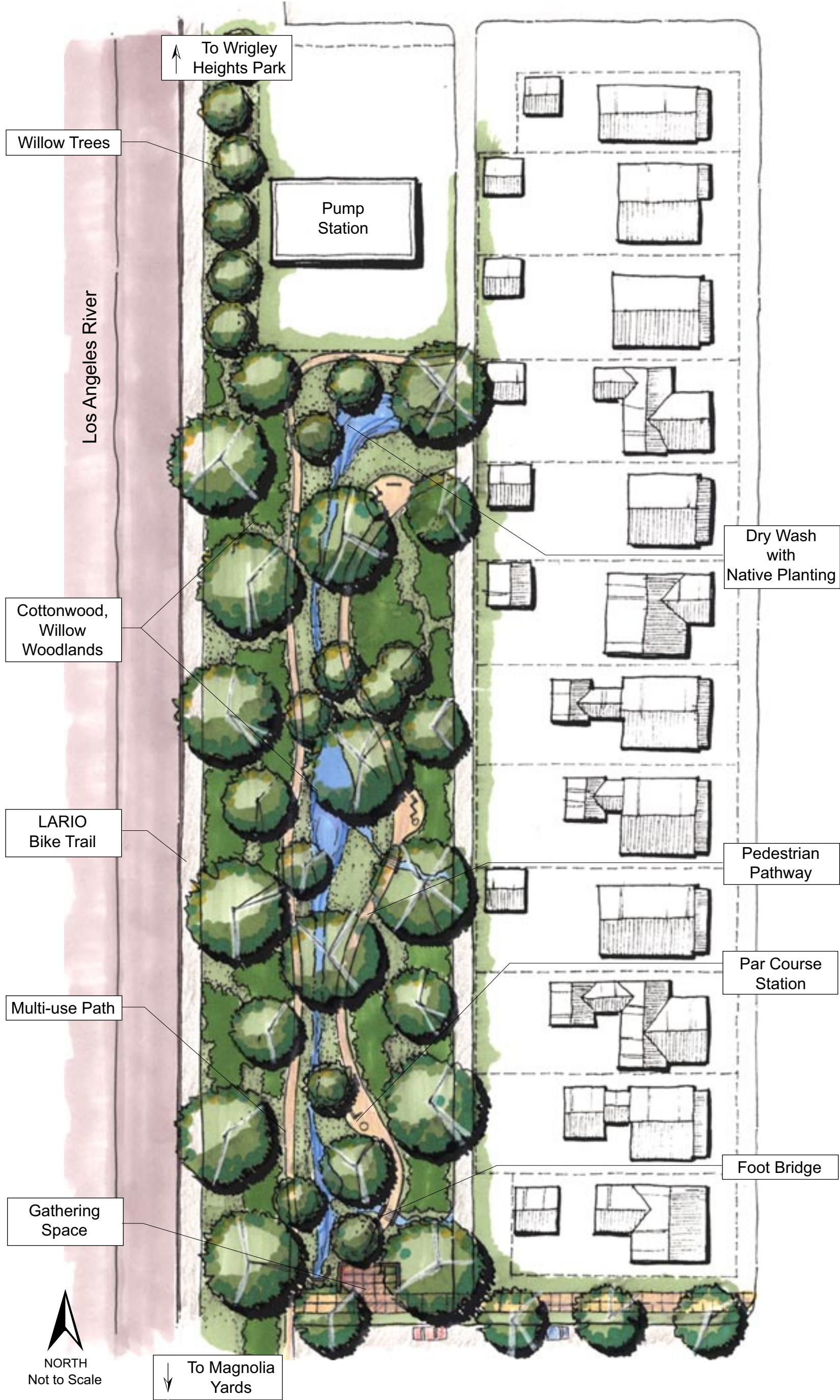
Furthermore, the design team suggests the city consider the following incentives, if economically feasible:

- Low interest loans and grants
- Property tax abatements, credits, deferment, and rebates
- Reductions in city fees, permit and services costs, and barter arrangements

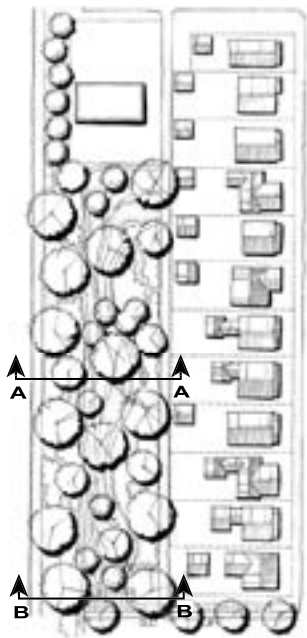
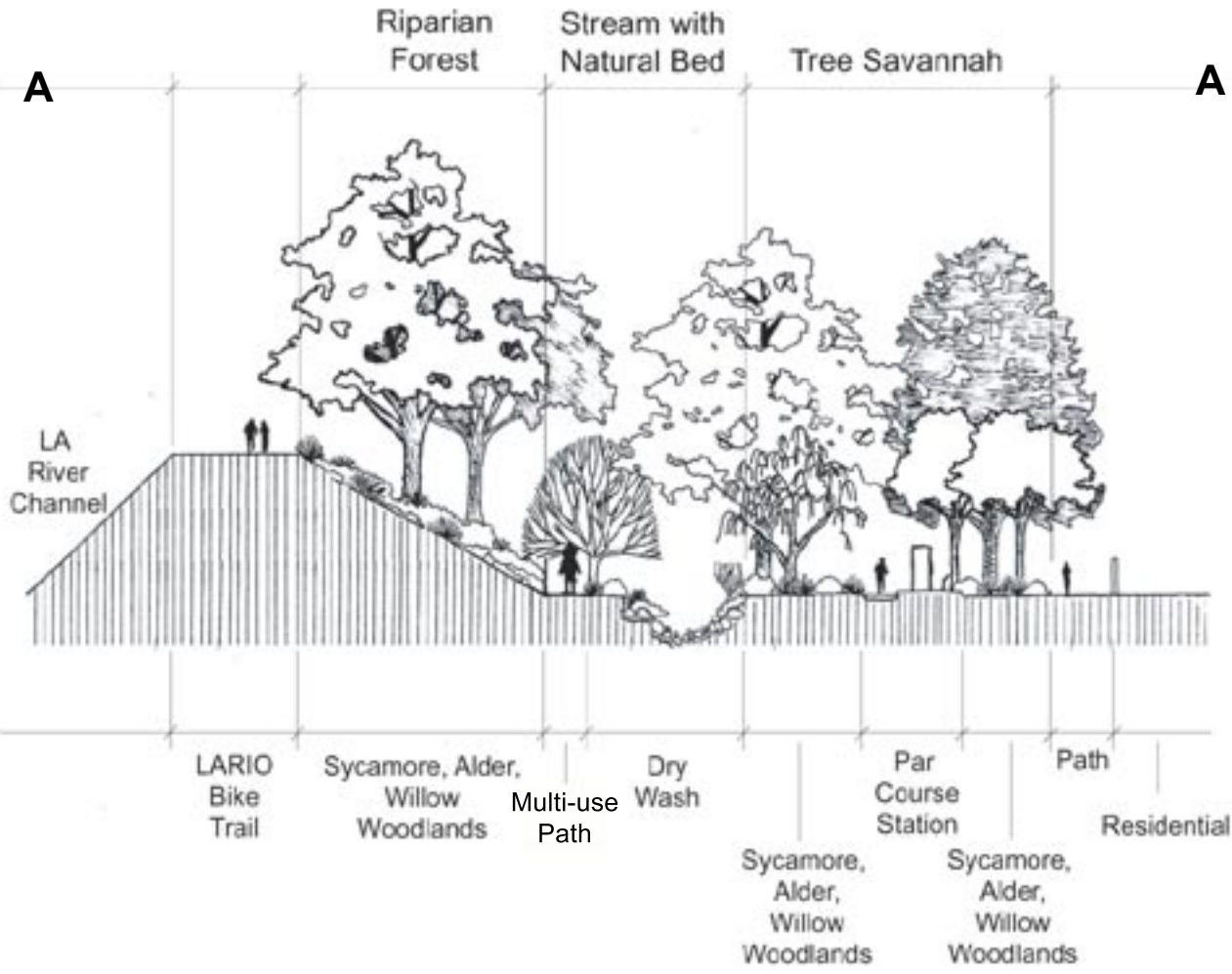
Wrigley Greenbelt

The Wrigley Greenbelt occupies narrow properties along the river channel from Pacific Coast Highway north to Wardlow Avenue. These properties vary in width from 25 ft to 225 ft and provide an invaluable green link between the parks at Magnolia Yards and Drake Greenbelt, and the Wrigley Heights Park north of Wardlow. During the community outreach meetings, residents suggested that the Wrigley Greenbelt also provide an undulating “par course” pathway trail with fitness stations along the foot of the berm, planted with native trees and shrubs.

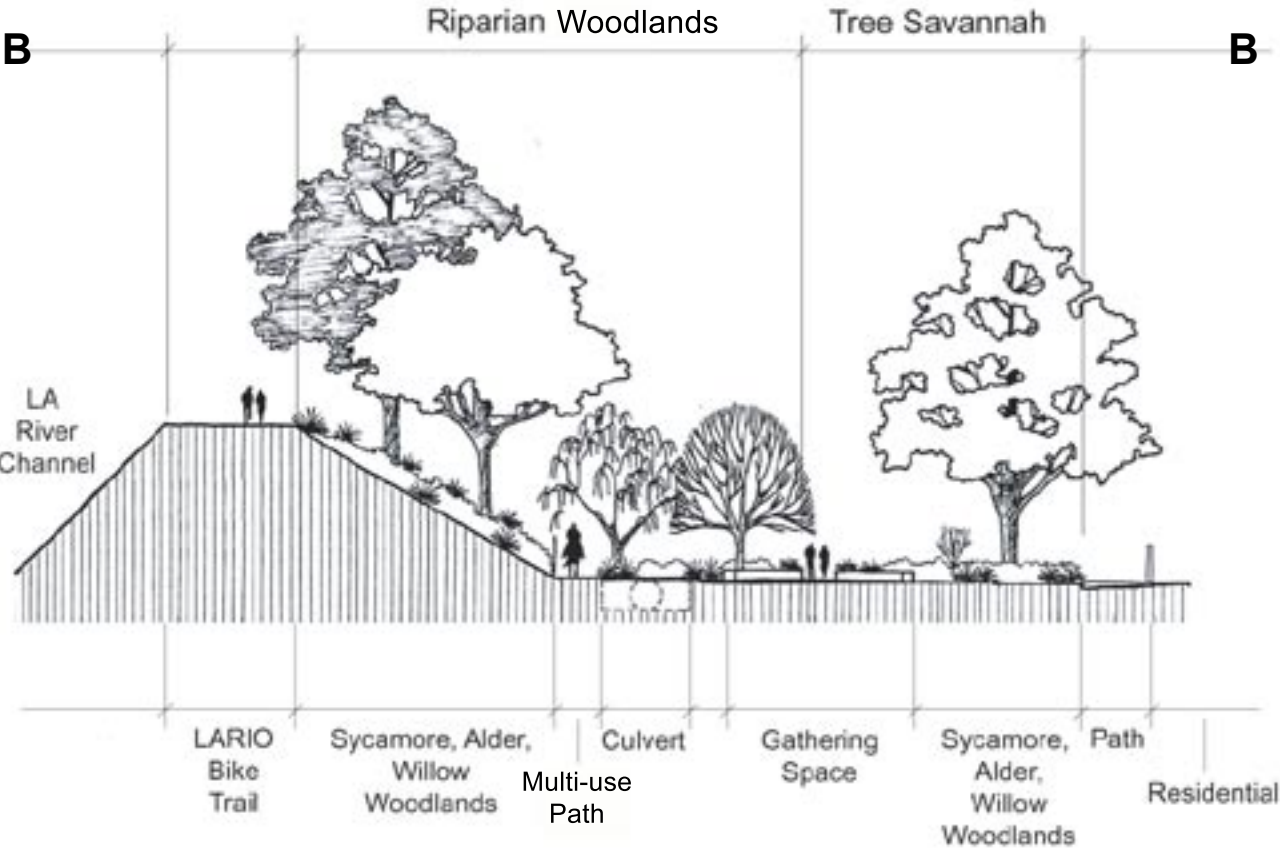
Wrigley Greenbelt Concept Plan (Typical)



Wrigley Greenbelt Sections



Wrigley Greenbelt Sections Map



The Wrigley Heights sites and the Wrigley Greenbelt will exhibit Spanish Revival amenity style responses. This is due to predominance of Spanish Revival homes in this area, the neighborhood association identification with those styles, and the location of the Historic Rancho Los Cerritos, just northeast of the Wrigley Heights sites.

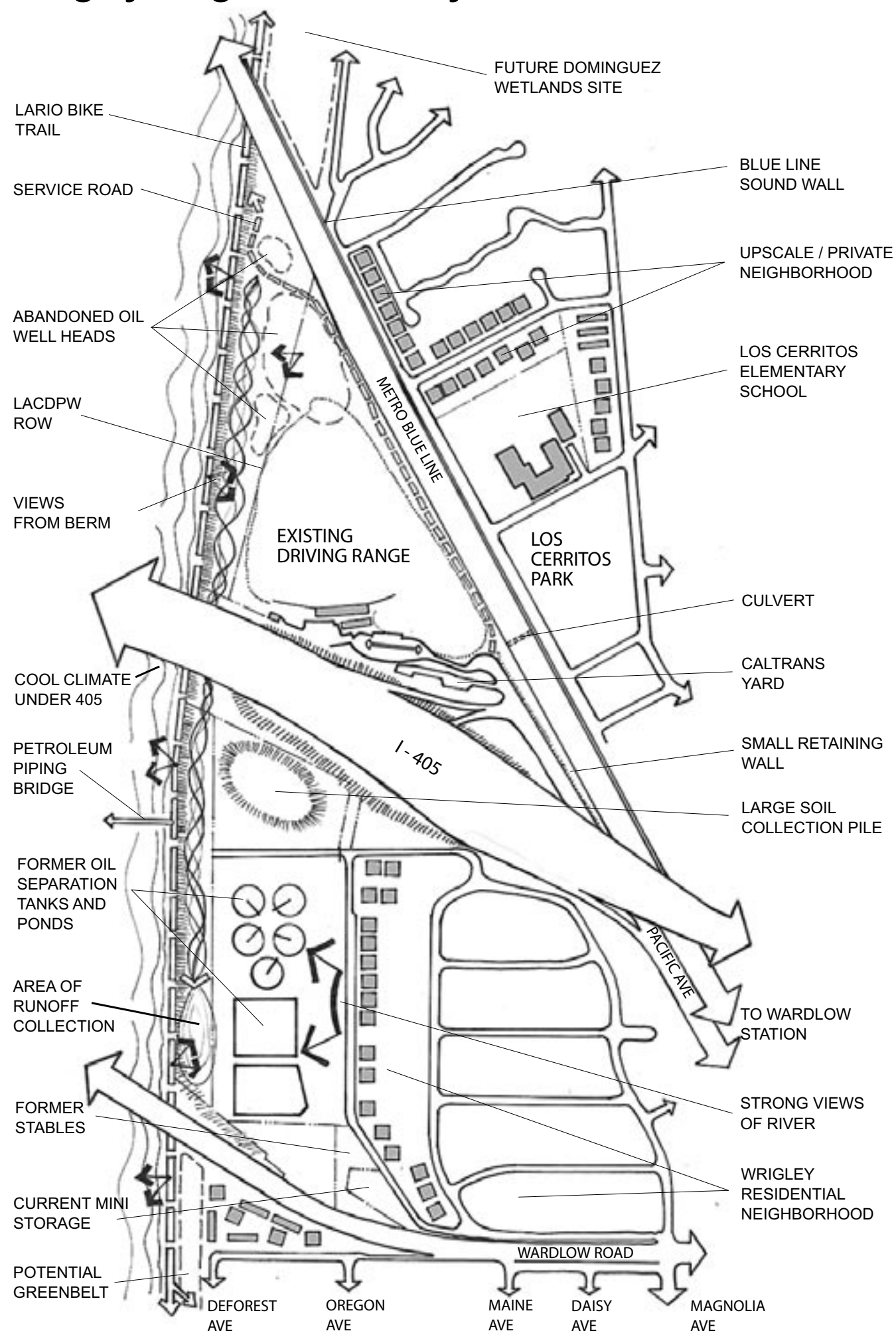
Design Response: The varying width of the properties constrains the activities that can happen on-site. The LARIO Bikeway continues along the top of the channel berm, however, smaller paths for pedestrian and slower moving bicycles will weave through the greenbelt at the foot of the slope. Consistent with the city's wishes for appropriate wetlands development, a narrow reed-rock filter bed will capture urban runoff occurring near the berm that does

not make it to the storm sewer system, and will direct it south through the greenbelt. This allows percolation into the groundwater aquifers while removing heavy sediments and chemicals from the water. Connections to the LARIO Bikeway will be enhanced near Hill and Spring Streets with handicap accessible ramping and stairway connections. A surrounding of riparian woodlands consisting of cottonwood trees (*Populus fremontii*), sycamores trees (*Planatnus sp.*) and willow trees (*Salix sp.*) denote these connections and provide shaded places of respite off the bike trail.

Wrigley Heights Park

This 50-acre property has operated as a processing area to receive and treat brines and oil-waste fluids, to recover low-grade oil for resale, and

Wrigley Heights Site Analysis



79

to discharge wastewater into the sewer system. The treatment plant consisted of five circular concrete skimming basins, two large collection ponds, and various aboveground storage tanks. Historically, an equestrian center operated on the southeast portion of the area. A small mini-storage facility is located next to the former stables. The site is bordered by the I-405 freeway to the north, Wardlow Road to the south, Golden Avenue to the east and the Los Angeles River to the west.

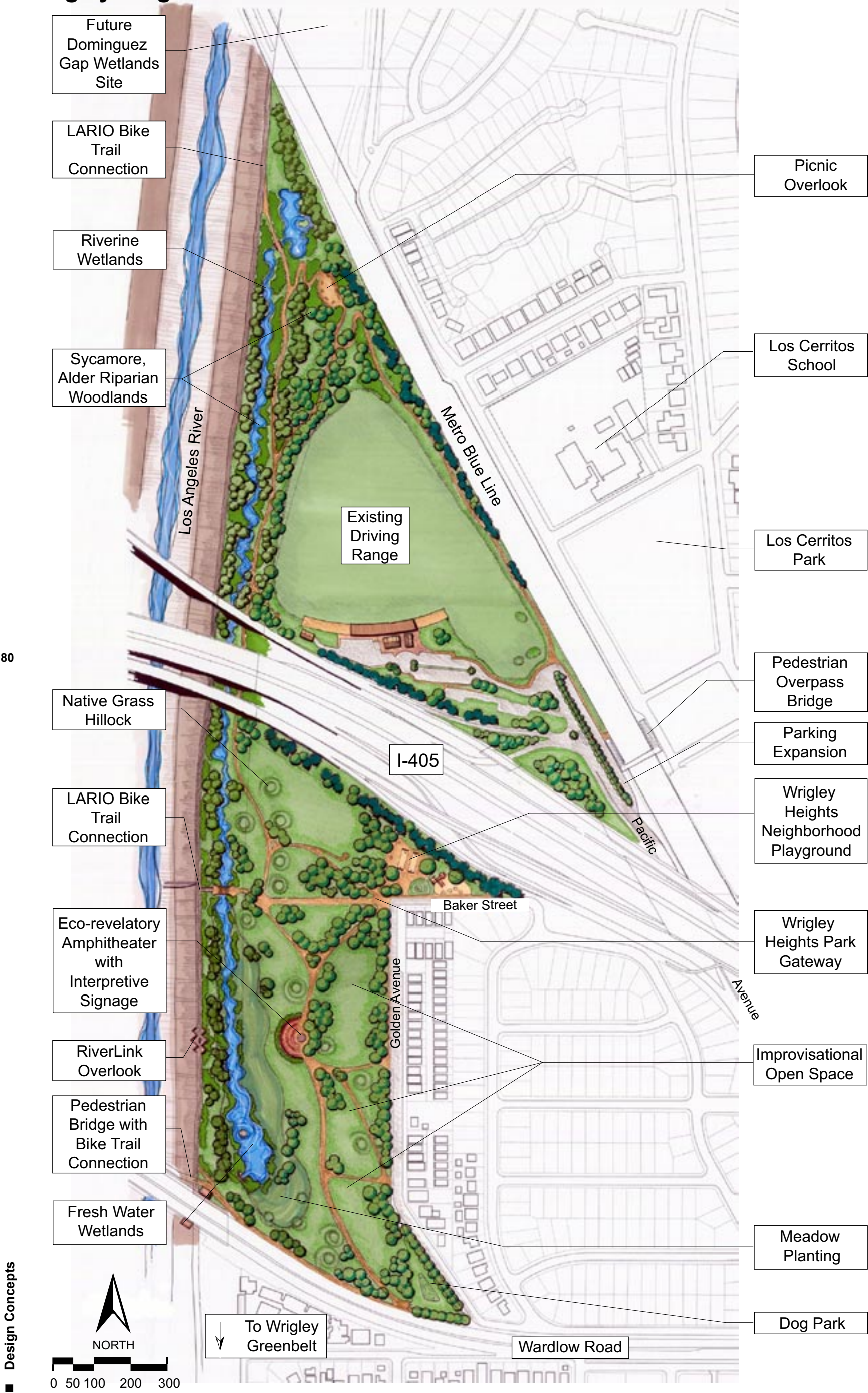
Because of the site's past use, remediation of contaminated soil must be accomplished prior to development of the community open space. The remediation process will involve three methods: (a) treat contaminated soil using onsite bioremediation, (b) incorporate soil into engineered sub-

base, (c) transport soil offsite which is beyond bioremediation methods.

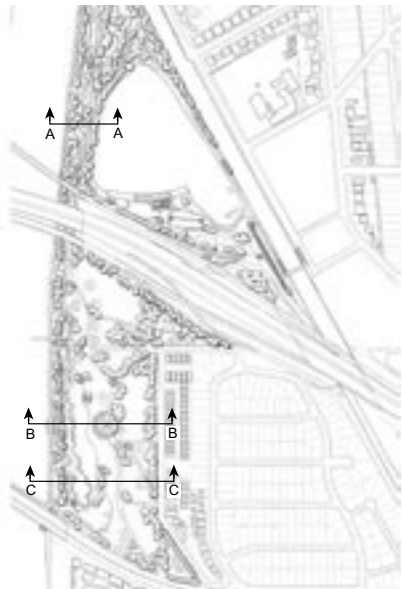
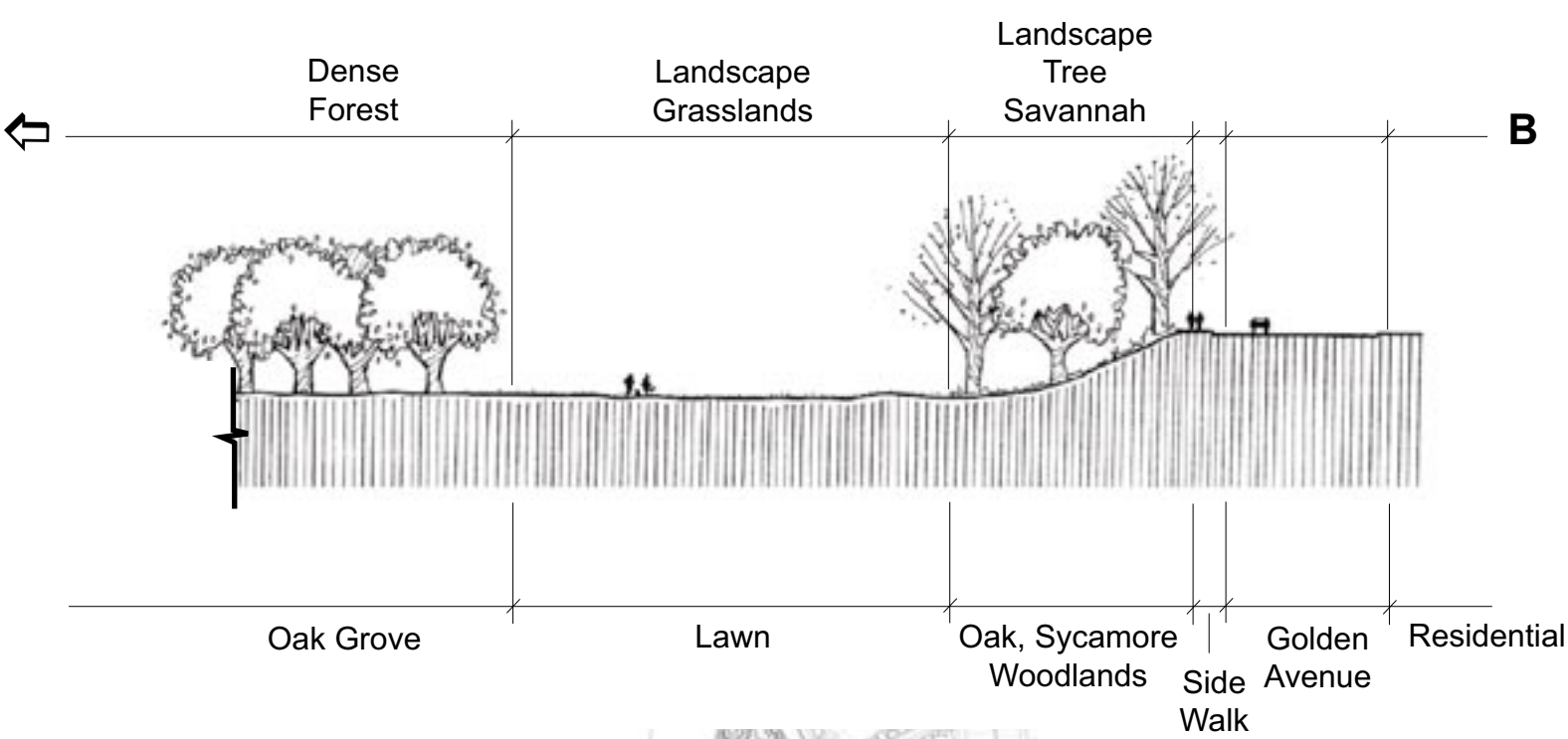
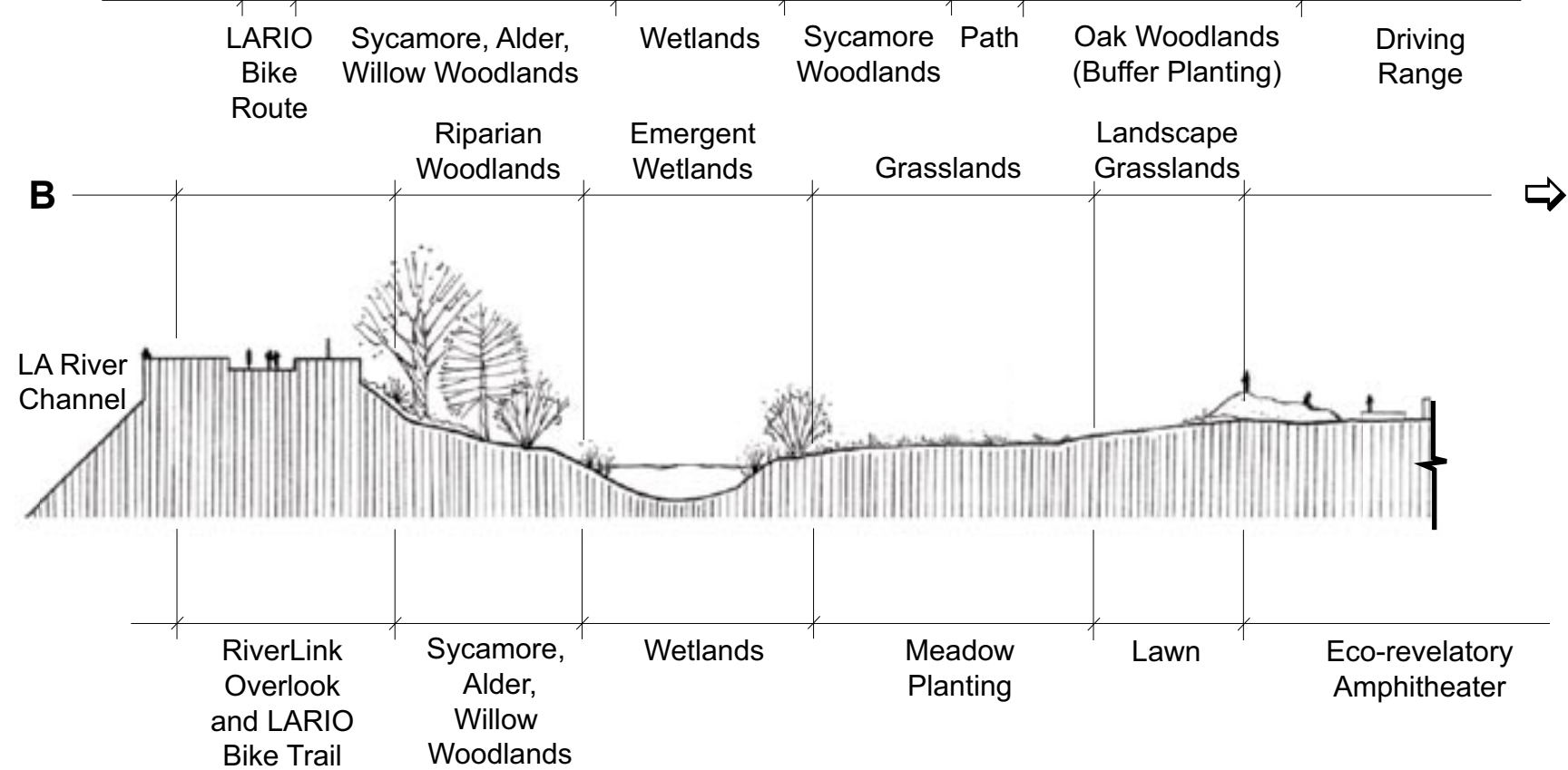
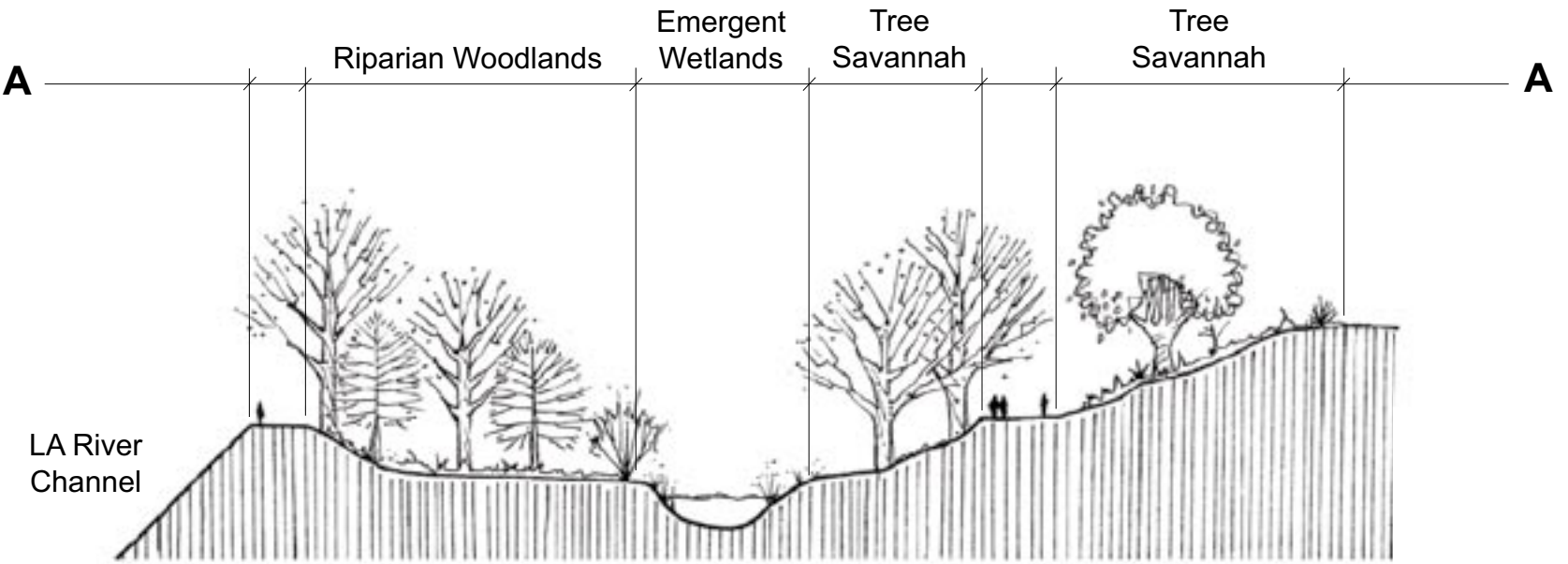
Total petroleum-hydrocarbon affected soils will be excavated and treated using bioremediation onsite in a specially constructed treatment area. Prior to the introduction of crude-oil-impacted soil into the treatment areas, the native ground surface within the treatment areas will be compacted in order to minimize the potential for leaching, although the solubility of crude oil is low. Containment berms will be constructed around the perimeter of the treatment areas in order to contain surface water runoff.

The crude-oil-impacted soil is placed into a treatment area until it reaches a height of several feet. The upper one-foot of soil is then treated until it

Wrigley Heights Park Site Plan

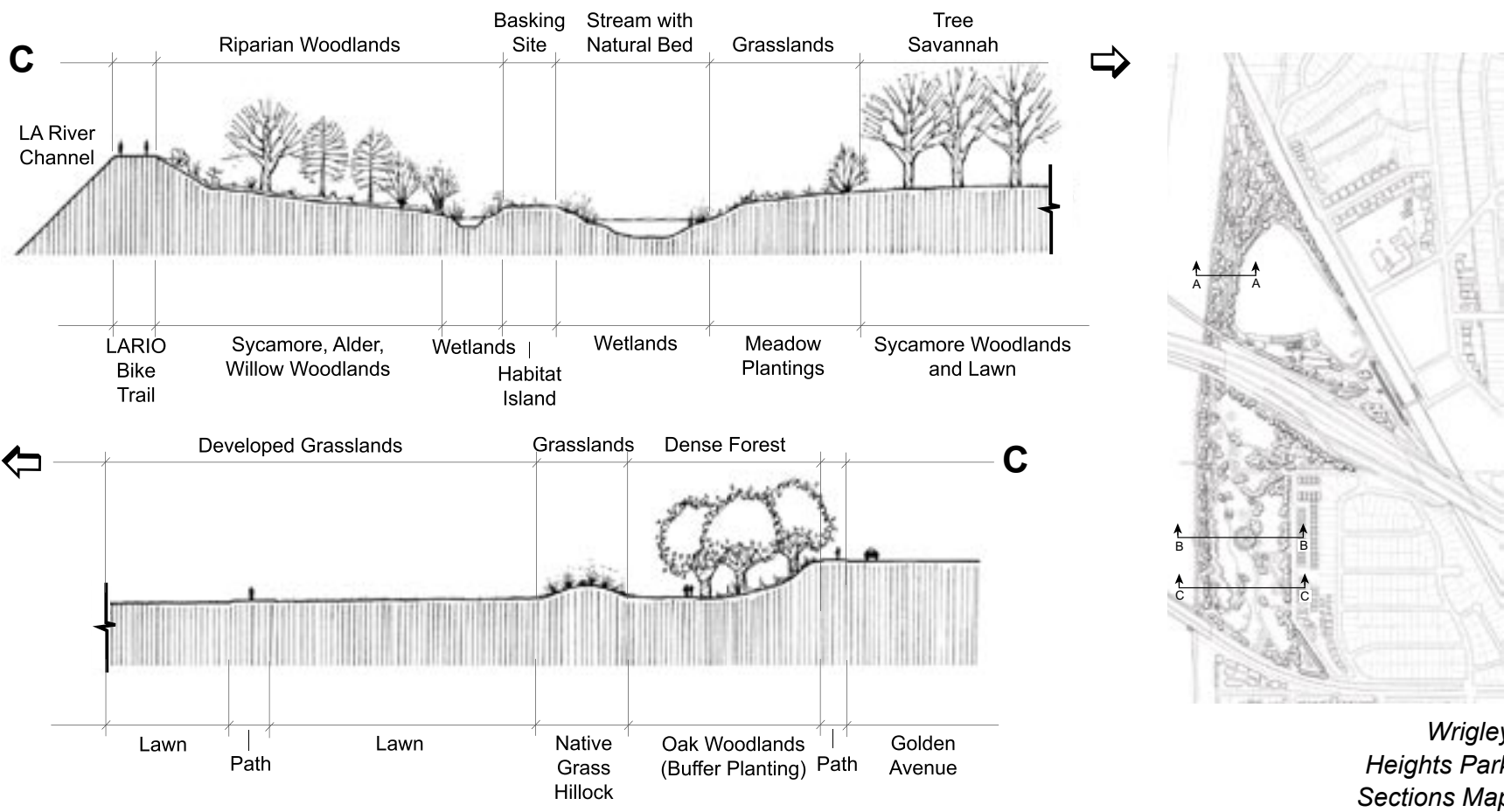


Wrigley Heights Park Sections A and B



Wrigley Heights Park Sections Map

Wrigley Heights Park Section C

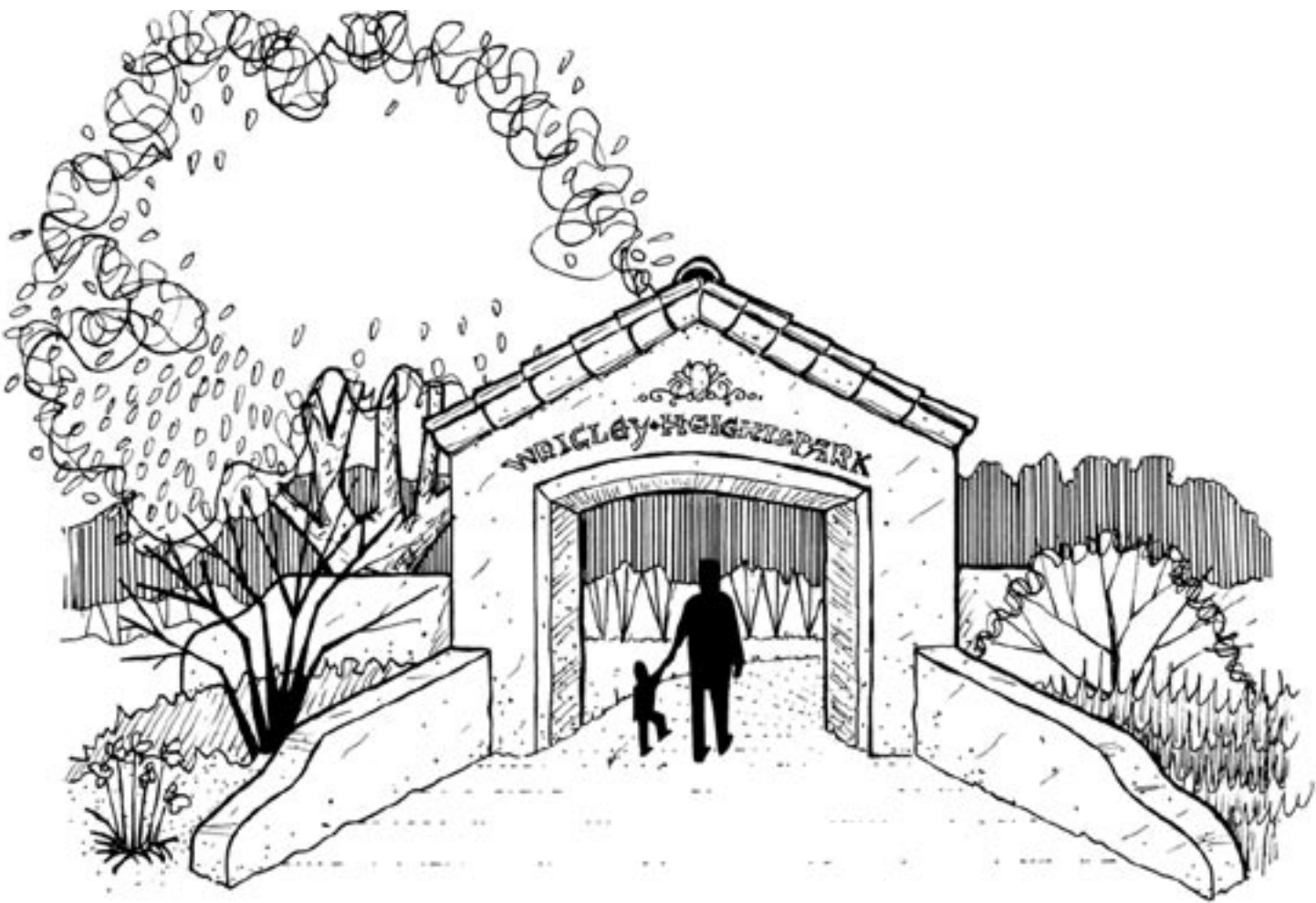


meets the treatment criteria. This upper one-foot is then removed and buried to prevent weeds from germinating while the treatment of the next one-foot of soil begins. This process is repeated until the crude-oil-impacted soil is cleaned and returned to the excavation pits.

Treatment consists of (a) mechanically discing and/or pulverizing the soil on a regular basis for aeration purposes, and (b) maintaining optimal moisture content through periodic watering in order to facilitate biodegradation by the indigenous soil bacteria. Bacteria activity will biologically degrade petroleum hydrocarbons present in the soil to an end product consisting primarily of carbon dioxide, biomass and water.

Based on the project goals and community input, the following program objectives were developed:

- **Passive Recreation**—The community specifically asked for more passive recreational opportunities, such as walking trails, unprogrammed open spaces, and public forum spaces for informal gatherings. The community was concerned that active recreation will bring too much traffic to the park.
- **Eco-Revelatory Design**—This site will provide educational opportunities and interpretive signage showcasing the ecological systems acting on the site over time. This includes educating through interpretive signage, about the process of moving from the oil industry past, through



Neighborhood Gateway at Wrigley Heights Park



View of Pathways in Wrigley Heights Park

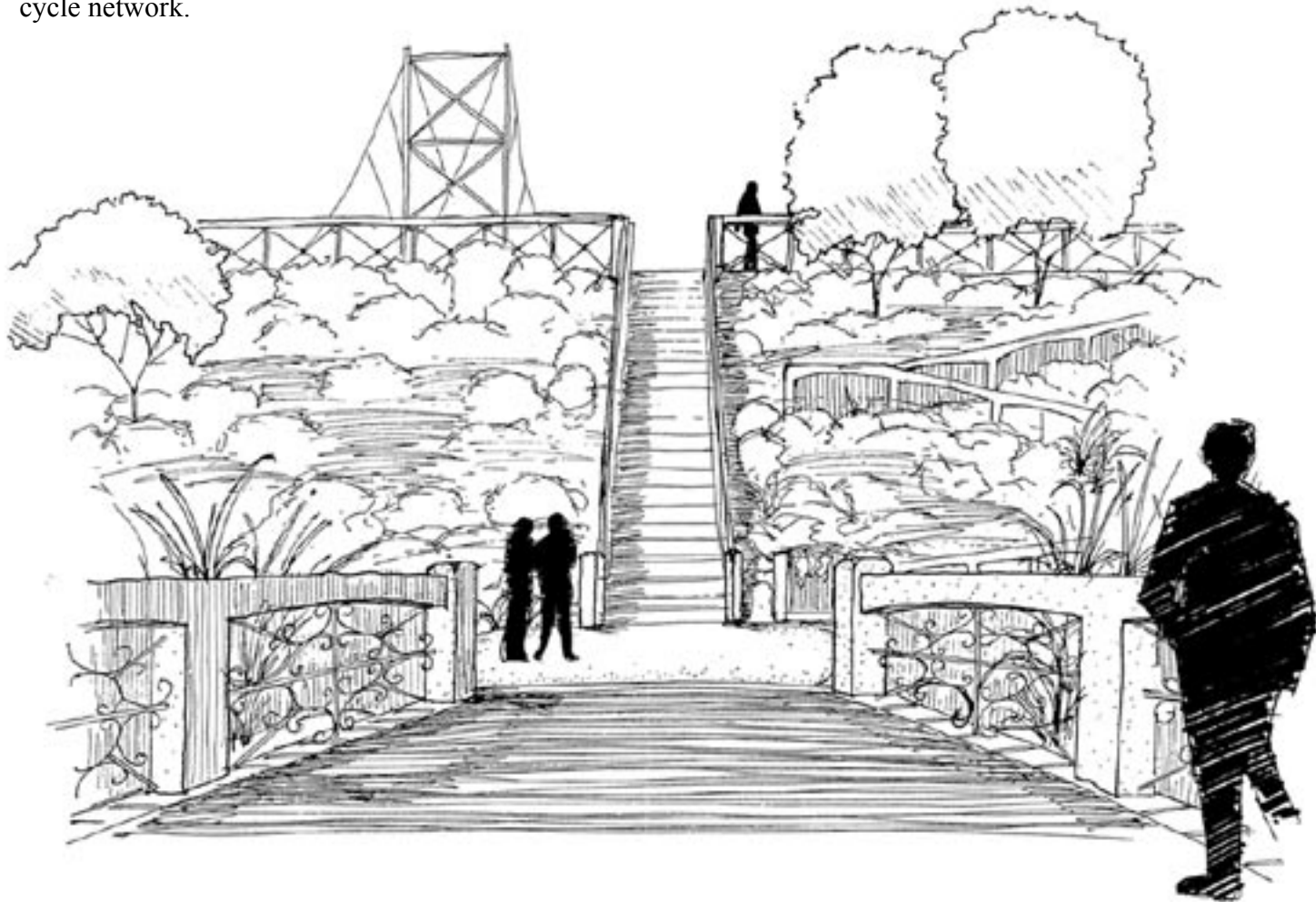
the present remediation efforts, and into the future as a neighborhood park. Local schools can coordinate their classes to take advantage of the educational value of the site.

- Site Remediation—Based on the prior uses of the site, much remediation would have to be done to correct the ecological damage. The community was very concerned that this be carried out in a timely, safe, and sensitive manner.

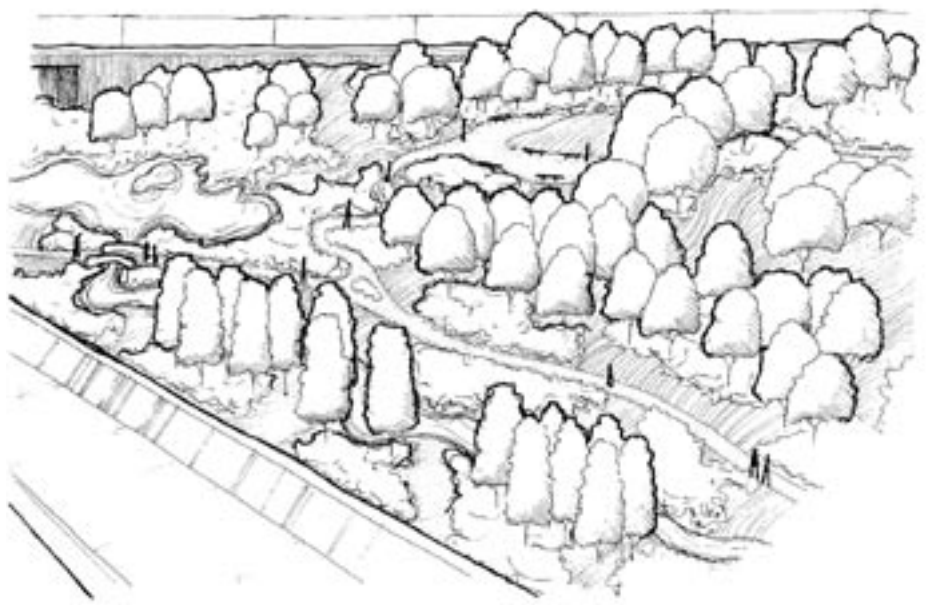
The following criteria were established from the project goals and objectives to guide the design team in the successful design of the Wrigley Heights Park:

- Create connections to surrounding neighborhoods by connecting to existing sidewalks and pedestrian paths and linking to the bicycle network.

- Enhance educational opportunities by interpretive signage and eco-revelatory site features.
- Encourage the creative reuse of existing infrastructure and damaged sites by remediating a former industrial brownfield, and using remnant features as site amenities.
- Encourage walking and bicycling by connecting into the proposed bicycle network and providing safe paths wide enough to accommodate bikes and pedestrians.
- Optimize the urban forest with groupings of native trees and understory shrubs.
- Provide passive recreational opportunities that create a relaxing atmosphere in the park.



LARIO Bike Trail Access from Wrigley Heights Park



Wrigley Heights Park Picnic Overlook

- Coordinate with the site remediation process by designing the park to take advantage of the phased cleanup process.
- Enhance connections to the natural and physical environments by re-creating natural landscape features onsite, such as wetlands, and by providing interpretive signage for those features.

Conceptual Plan

Gateways

Gateways in Wrigley Heights Park will display thematic designs of the Spanish Revival style and will be placed at all the entry points on Golden Avenue and at the trailhead and pedestrian bridge

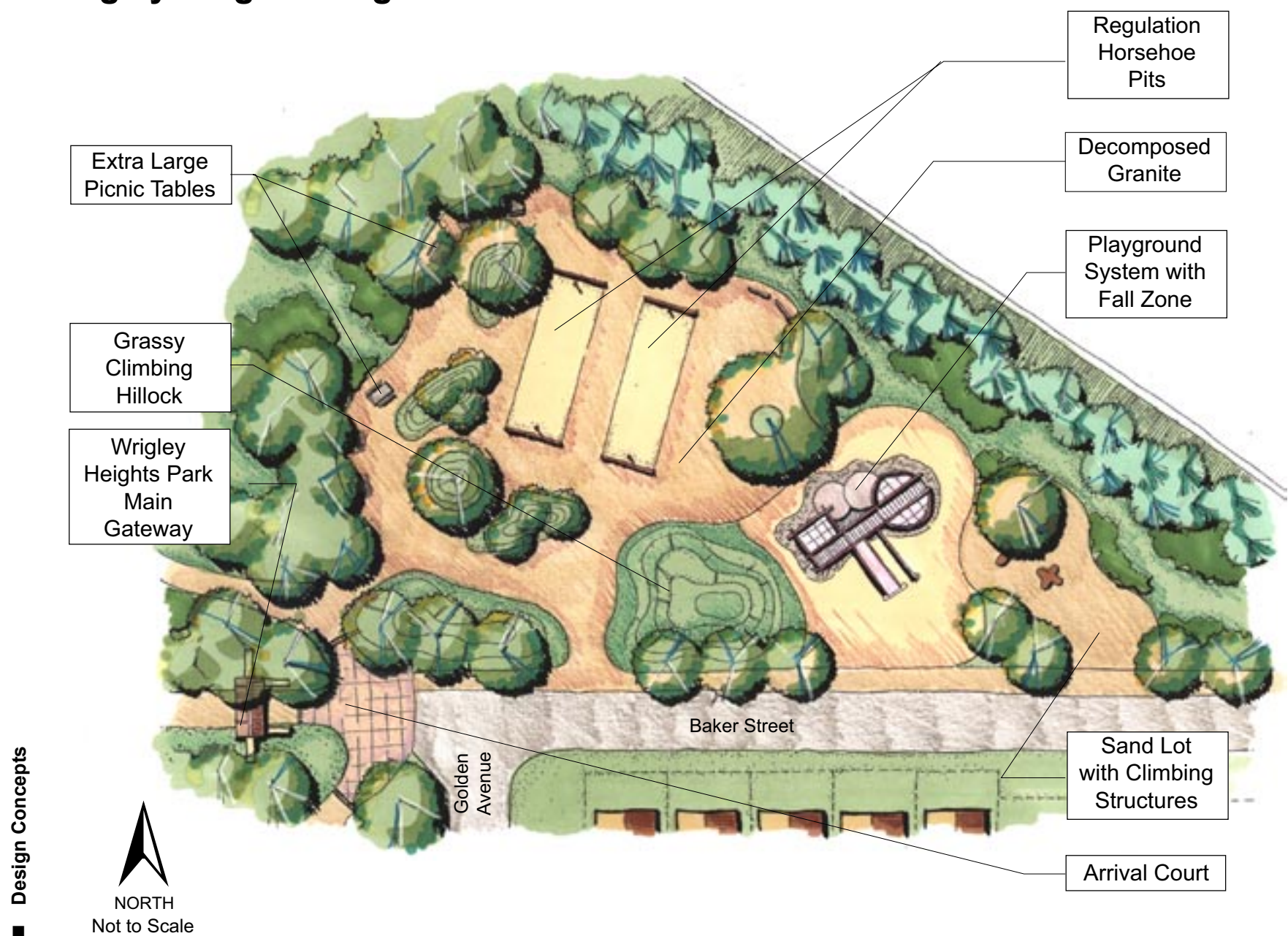
over the Metro Blue Line next to the planned parking expansion off Pacific Avenue. Their scale will be intimate so as to be unobtrusive to the surrounding residential neighborhoods.

Pathways

Pathways throughout the site will allow universal access and direct visitors towards destinations through wayfinding devices such as landmark features and directional signage.

- Movement through Wrigley Height Park will be directed along paths that provide universal access to all. Pathways will be of two different widths: the main spine, 12-15 ft wide, allowing pedestrians and bicycles, and smaller

Wrigley Heights Neighborhood Mini-Park



paths, 8-10 ft wide, for pedestrian-only travel. The main spine will connect all the major features of the site and provide access to the LARIO Bikeway.

- Wayfinding devices along the pathways will direct the visitor to different amenities associated with the park. To minimize disorientation, the top of the map kiosks will always face the same direction as the reader. Landmark features will denote special points of interest, will be visible from far distances, and will give visual clues about the relative location of amenities.

Connections

The community and Wrigley Heights Park are connected through culture and nature. This allows the site to reflect community changes over time.

Cultural Connections

- Pedestrian travel is promoted, creating an open edge along Golden Avenue opposite the Wrigley Heights neighborhood. Prescribed entrances are located at three points along this stretch; however the open edge will allow free-flowing movement between the neighborhood and the park, and will slow traffic along the road. A pedestrian overpass will span the Blue Line tracks and connect the historic Rancho Los Cerritos neighborhood to the northern portion of the park by way of signage and pedestrian trails. Additionally, pedestrian bridges will connect the LARIO Bikeway with the park, crossing over the open wetlands along the foot of the berm.
- Bicycle travel is promoted by creating access points to the LARIO Bikeway. Access from the neighborhood is from the northern end of Golden Avenue.
- The community is very much against added vehicular traffic, so all automobile access is directed to the expanded parking lot adjacent to the existing driving range. This allows universal access for disabled visitors and keeps parking away from the neighborhoods. Some minor on-street daytime-only parking will be provided along Golden Avenue to allow for school bus parking.

Natural Connections

- Native and naturalized plantings create connections between the park, the community and the history of the area. Habitat classifications include naturalized forest and shrubland, landscape tree savannah, landscape shrubland, naturalized grassland, naturalized tree savannah, open water wetlands, and naturalized dense forest. Plantings will consist of

different aged plants to build successional regenerative groupings of trees and shrubs. Native grasses will be introduced on the site via 50-foot diameter hillocks, which are located on top of where the monitoring wells were during the remediation process. The grasses will initially be contained to these hillocks, then as they mature, they will be allowed to spread out from the hillocks in a controlled fashion. The native grass introduction must be managed and weeded because of the nutrient-poor condition of the soil after the remediation process and the prevalence of invasive weed species in Southern California. Eventually, native grasslands will cover large portions of the site, creating greater wildlife habitat and aesthetic value in the park.

- Wildlife habitat will be enhanced by the urban forest created in the eastern parts of the site and the northern end near the Blue Line. The re-created habitats will attract birds and small mammals using the Los Angeles River corridor into the greenbelt and will connect the people of the community to the place.
- Open and emergent wetlands created along the foot of the berm will connect visitors to ecological systems that existed along the Los Angeles River prior to relocation and channelization. They will also assist in cleansing urban runoff before it is fed into the river channel.

Destinations

Destinations in Wrigley Heights Park will provide amenities addressing the needs outlined by the community.

- The picnic overlook located at the very northern part of the park is a secluded nook in a naturalized setting. It overlooks the open wetlands and offers interpretive signage. Typical picnic facilities will be provided such as barbecue pits, cookers, ADA accessible concrete benches and tables, and waste receptacles.
- The existing public driving range will remain to offer recreational opportunities onsite. The range sits atop a capped brownfield site and its use is best left untouched for the time being. The surrounding landscape will be improved to shield golfers from other park activities and to lessen the effect of the driving range on park users.

- Open water and emergent wetlands are planned to stretch over 1/2 mile along the western edge of the park at the toe of the Los Angeles River channel berm. The planting of sycamore/alder woodland will enhance the current conditions and provide an estimated 10 acres of riparian woodland habitat. Based on the high water table, it is expected that ri-

parian woodlands would be sustainable once established. Wetland meadows will encircle these ponds as the topography allows. Interpretive signage along pathways will clue the visitor into the wetlands processes taking place. The water will finally discharge into the Los Angeles River at an existing storm water outlet south of Wardlow Road. The proposed design provides for the future opportunity to develop a hydrologic connection to the planned Dominguez Gap Wetlands Project, directly north of Wrigley Heights Park. Dominguez Gap is currently a water retention basin operated by the LACDPW. Water drawn from Dominguez Gap will require both an inlet pipe under the existing Metro Blue Line and a release pipe piercing the Los Angeles River channel. Both actions will require securing the approval of LACDPW and the USACE. A comprehensive engineering and hydrologic study should be carried out to assess the feasibility of connecting the Dominguez Gap Wetlands system into Wrigley Heights Park. Based on a feasibility study performed for the DeForest Wetlands, water from the Los Angeles River is currently a viable source. However, as programs to reduce runoff are implemented in the region, the quantity of water may become limited.

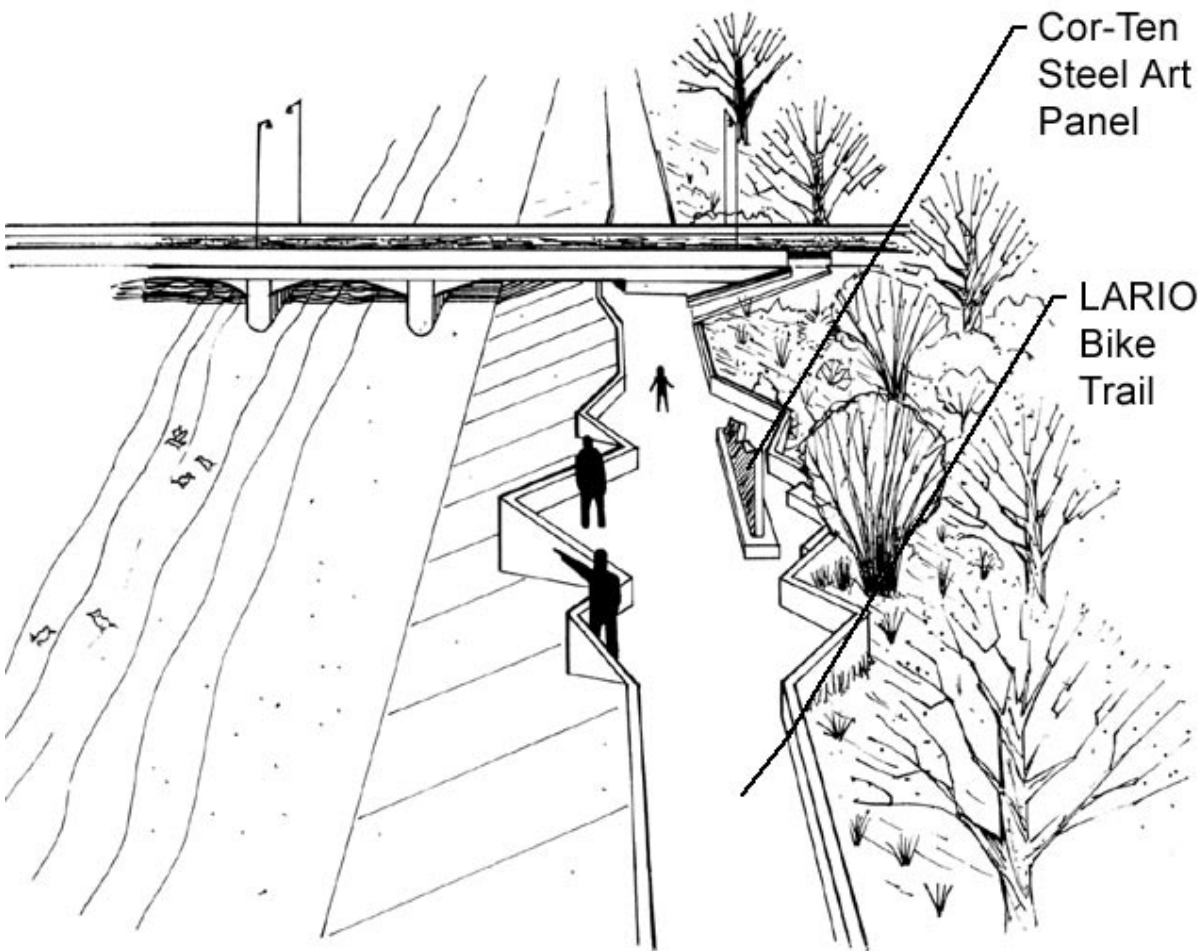
- The neighborhood mini-park features a tot-lot style playground with picnic and viewing areas for parents. It also features a grassy climbing hillock, two horseshoe pits, and chess tables. This corner of the site is currently owned by the city and is not contaminated, so no remediation work needs to take place. It

is recommended that this amenity be the first phase of any work to be done for the park so that the community immediately has the usable park space that they desperately want.

- The eco-revelatory amphitheater is located in the center of the main portion of the park and provides a common space for the community to use for public performances or forums. The shape is reflective of the circular skimming basins used to separate oil from water, located in the center of the contamination plume. Through interpretive signage, the amphitheater will showcase the remediation process.
- Pathways weaving through the park define improvisational open spaces. These spaces have no specific programming; they are intended to be open areas for use by the community. Located throughout the improvisational spaces are the monitoring-well hillocks explained earlier. The lack of programming is integral to the design of these open spaces, allowing them to be flexible. They can be used for outdoor fairs, small or large gatherings, or an informal soccer game. To read more about the idea of improvisational open spaces, refer to Appendix E.

RiverLink Overlooks

The design team envisions special destination overlooks to be placed along the LARIO Bikeway at areas of cultural and ecological significance to the RiverLink system. The Riverlink overlooks provide areas of viewing and gather-



Typical RiverLink Overlook



Cor-Ten Steel Panel: Long Beach Memories

ing along the bike trail. The angular shape outlined by the walls of the overlooks are inspired by the triangular Art Deco façade details found on many Long Beach buildings, bridges, pump stations, and port terminal buildings. Seating areas shaded by native plantings on the city-side of the berm will provide comfortable spots to rest. Adequate space is provided for clear access for Los Angeles County service and emergency vehicles to pass through. Additionally, the overlooks will not impede hydraulic conveyance of the flood control channel.

Each overlook is punctuated by a large, plasma cut, Cor-Ten steel panel that reflects the significance of that particular site or reach of the river. For instance, the Golden Shore Wetlands panel might have an ecological theme. Other ecological panels will be placed at areas of native plant and wetlands restoration, speaking to fauna and flora of the different habitat communities. At areas of cultural significance, such as Magnolia Yards, the panels will speak to cultural themes such Long Beach's past history, diversity, and industry (see detail). The design team suggests the city enlist local artists to help develop and create these panels through a design competition. The panels will be placed near the destination parks such as Drake Greenbelt, Wrigley Heights Park and at areas of connection like the intersections of Hill, Spring and Market and Long Beach Boulevard. The panels will act as wayfinding devices or landmarks that inform and entice visitors to move toward and along the Los Angeles River. The Cor-Ten steel can

withstand almost every environmental or urban condition and hazard, and will need little to no maintenance once erected.

Dominguez Gap Wetlands

The Dominguez Gap is currently part of Los Angeles County Flood Control District. It consists of storm water holding basins and several pump houses along the river channel from north of the Metro Blue Line bridge, to the proposed Deforest Wetlands System just above the Long Beach Boulevard bridge. Urban runoff is directed into these basins and is retained until it reaches a certain level, when it is then pumped into the river. The Blue Line overpass creates a major edge between the Dominguez Gap and Wrigley Heights Park. Dominguez Gap lies adjacent to the Los Cerritos neighborhood and stretches behind the Virginia Country Club. There is a proposal to make the current system into a wetlands demonstration park using hydrologic connections to Los Angeles River water and/or other water sources. The design team was not privy to the proposal's details, but there is a strong likelihood that it will be approved because of the level of county and city interest and collaboration. There is a similar wetlands site proposed for Dominguez Gap, on the West Bank of the Los Angeles River, between Wardlow Road and the Union Pacific rail line or between Compton Creek's inlet and the Los Angeles River.



Concept of Dominguez Gap Wetlands (Source: County of Los Angeles Dept. of Public Works, 2003)

Deforest Wetlands

The city has proposed wetlands development in Deforest, similar to those planned for Dominguez Gap. The firm of CH2M Hill has done an extensive feasibility study of this area and has developed several design concepts for the wetlands.

Deforest Park

Deforest Park is an existing park and currently includes recreational facilities such as basketball and tennis courts, a recreation center, and the Deforest Nature Trail. The nature trail is overgrown with exotic plant species and needs significant help to restore it ecologically. Additionally, safety is a concern here because of vagrancy, and the lack of lighting, emergency phones, and exits. The LARIO Bikeway continues along the top of the channel berm; however there are few access points in the Deforest system. The city has well-developed plans for the Deforest Nature Trail, so the design team was directed only to connect the existing park with the river greenway treatment, thus creating a consistent theme along the edge of the Los Angeles River. The design team proposes that further research and work be done on the nature trail to restore both ecological and social balance. North Long Beach residents like having a nature trail, but feel that Deforest is unsafe. Bike access to Deforest should also be enhanced. ■